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# ***JPRS Report***

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# **China**

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## CHINA

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## MACROECONOMIC MANAGEMENT PROBLEMS DISCUSSED

40060866 Beijing CAIMAO JINGJI [FINANCE AND TRADE ECONOMICS] in Chinese  
No 11, 11 Nov 86 pp 1-10

[Article by Li Chengrui [2621 2052 3843], of the State Statistical Bureau:  
"Several Issues About Macroeconomic Management"]

[Text] In his "Report on the Seventh 5-Year Plan," Premier Zhao Ziyang pointed out that an important aspect of the reform of the economic structure is that "the state will establish a new socialist macroeconomic management system by gradually changing from mainly direct to mainly indirect control in its management of enterprises." This is a very complicated new task. Our work has only just begun, and we do not have much useful experience. The views in this article are tentative and exploratory, presented for public discussion.

I. Strengthening and Improving Macroeconomic Management Is An Important Part of the Structural Economic Reform.

1. As our experience grows, we have come to understand more and more clearly the important role played by the strengthening and improving macroeconomic management in our structural economic reform. Following the 3d Plenary Session of the 11th CPC Central Committee, China started its structural economic reform with the implementation of the output-related system of contracted household responsibilities in rural areas and the expansion of the decisionmaking power of enterprises in urban areas, both aimed primarily at invigorating the microeconomy by adopting flexible policies. These were the right things to do then, because the rigid and excessive microeconomic control over a long period in the past had seriously fettered the vigor of the grassroots units. The implementation of these measures produced quick and notable results in arousing the enthusiasm of the masses and enterprises and accelerating the national economic development. We understood even then that it was necessary to "exercise strict control over major economic matters, while adopting flexible policies on minor ones," but we did not really know that strengthening and improving macroeconomic management was also an important part of the structural economic reform, and how to strengthen and improve it. At that time, reform in planning was mainly to reduce the number of mandatory targets and increase the number of guidance targets to give play to the regulatory role of the market and create



conditions for expanding the decisionmaking power of enterprises. By the latter part of 1984, owing to the vacuums and loopholes created in the change from the old to the new system and other reasons, the macroeconomy showed signs of going out of control, with industrial output growing at a "superhigh speed" and simultaneously increasing demands for investment and consumption, which adversely affected not only the normal development of the national economy but the smooth progress of the structural economic reform. Only after the CPC Central Committee and the State Council adopted a series of measures to strengthen macroeconomic management, was the growth rate brought down to a normal level and the contradiction between supply and demand alleviated. In the process, some indirect means of control, such as taxes and interest rates, were used (which made it different from past "readjustments"), but, because of the absence of a sound microeconomic control mechanism and market system, the job was done mainly by means of direct control. Such direct control produced rather remarkable results in checking the swelling demands. At the same time, it should be noted, it also had a negative impact on the growing vigor of the enterprises. This shows that it is necessary not only to strengthen but to actively improve macroeconomic management in order to create the needed conditions in various areas for the gradual change from mainly direct to mainly indirect control. Only in this way can we achieve greater success in reforming the economic structure and in economic construction. Recently some comrades held that since early 1985, the importance of macroeconomic management has been overemphasized, and that some problems have arisen as a result. It is true that direct control, which is still needed under present conditions, has brought some negative results. But it is wrong to think that it is unnecessary to strengthen macroeconomic management.

2. The relationship between macroeconomic management and microeconomic flexibility is dialectical, as the two are at once contradictory and in unity. First of all, the two condition and complement each other. Microeconomic units are the cells of the national economy, the objects of macroeconomic management, and the basis on which the national economy as a whole is formed. The life and vitality of the microeconomic units is what determines the overall efficiency and result of national economic development. This is one side of the picture. On the other side, only when the macroeconomy is growing in an objectively proportionate way, can the microeconomic units continue normal reproduction smoothly and without obstruction or interruption. Only with an overall balance between supply and demand and a basically rational price structure, is it possible for the microeconomic units to compete on equal terms, function normally, and bring their vigor and vitality into play. All this shows the unity between macroeconomic control and microeconomic flexibility. At the same time, the two are also contradictory. Between the microeconomy and the macroeconomy, there is always the contradiction between partial and local interests and interests of the whole, and the contradiction between immediate interests and long-term interests. Under conditions of a planned commodity economy based on public ownership, these contradictions, if handled properly (with effort, of course), can be resolved. This is a manifestation of the

superiority of the socialist system. In the course of the structural economic reform, the overlapping and friction between the old and new structures make the above-mentioned contradictions more complicated. The decisionmaking power has not yet been delegated to all the microeconomic units, and not all enterprises are behaving rationally. Some macroeconomic control measures are uncoordinated, even contradictory, and are conducive neither to invigorating nor to strengthening macroeconomic management. As the structural economic reform pushes forward, these contradictions will be reduced and eliminated step by step. I think that those who regard macroeconomic control and microeconomic flexibility as completed opposed to each other and those who ignore the contradictions between the two are equally wrong.

3. The degree, scope, and steps of microeconomic flexibility should be coordinated with the level, scope, and steps of the strengthening and improvement of macroeconomic management. This year, the all-round reform of the economic structure with emphasis on urban economic reforms will be consolidated, assimilated, supplemented, and improved. In the next 2 years, efforts should be made to speed up the reforms. The change from mainly direct to mainly indirect control in the state's management of enterprises is part and parcel of the structural economic reform.

## II. Change in Macroeconomic Management: From Mainly Direct to Mainly Indirect State Control of Enterprises

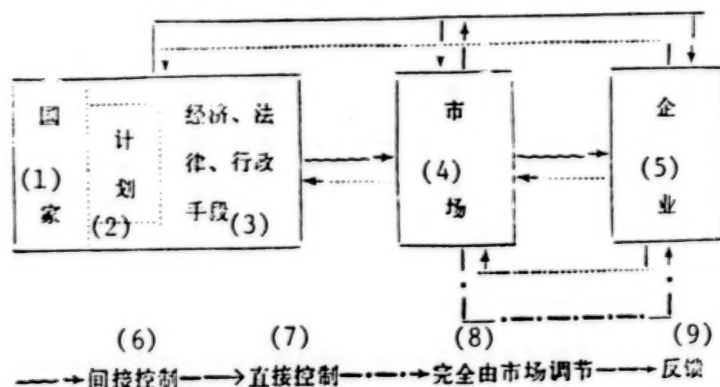
4. The implementation of a macroeconomic management system with mainly indirect state control over enterprises is an inherent requirement of a planned commodity economy. A planned commodity economy stands on the recognition that enterprises are relatively independent commodity manufacturers and dealers with full authority for management and full responsibility for their own profits and losses. It is a rejection of the past economic system characterized by excessive, rigid, and mainly direct state control over the enterprises. It should be made clear that if we fail to adopt a macroeconomic management system with mainly indirect state control, it means that we fail to recognize what the main activities are in a commodity economy, and it will be impossible to successfully develop a planned commodity economy. And, without a rapidly developing planned commodity economy, it is impossible to greatly increase our social productive forces. Of course, a planned commodity economy must be built on the basis of socialist public ownership, and a socialist country should and can reduce the blindness of the market through planning to insure the planned and proportionate development of the national economy as a whole, which is also an inherent requirement of a planned commodity economy.

5. Independently managed enterprises with full responsibility for their own profits and losses and a well-functioning market system--these are the two basic conditions for the institution of mainly indirect macroeconomic control. The goals of indirect state control over the enterprises can only be achieved through the internal mechanisms of the microeconomic units. If

an enterprise is incapable of independent management, unable to assume responsibility for its own profits and losses, and without the mechanism of self-regulation, it will be impossible for it to react sensitively to any economic lever. In the past few years, we have changed the source of investment funds for fixed assets from state allocations to bank loans and have twice raised loan interest rates, but these actions have not effectively curtailed the growing demands of state enterprises for fixed assets loans; although the levying of the building tax and major energy and transportation projects funds has produced some results in readjusting the economic structure and stepping up the major construction projects, it has failed to make a significant difference in controlling the overall scale of investment; the levying of bonus and income adjustment taxes aimed at controlling the growth of consumption funds has had some effect on reducing bonuses, but the amount of subsidies and overtime pays has increased rapidly, and the per capita wage income has continued to increase at a faster rate than the growth in labor productivity. These facts show that if the enterprises are "responsible only for profits and not losses," and as long as budget restraints remain loose, any indirect control measures will to a considerable degree be weakened or offset by the "big pot." Therefore, it is imperative for enterprises to have full management authority and assume full responsibility for their own profits and losses. To be sure, this alone will not enable the enterprises to respond quickly to the state's indirect control. It is also necessary to have a well-functioning market system. Only from such a market can enterprises obtain the price information and other indirect control signals they need to successfully readjust production, transfer funds, and make a reasonable profit. Only then can the activities of the enterprises, chosen according to their own interests, fall in line with the goals of macroeconomic management. In the past few years, readjustment or relaxed control of the prices of some commodities have resulted in price hikes. However, the theory that "higher prices will stimulate production, and increased production will in turn bring prices down" has not always worked. Enterprises often cannot obtain the information they need from the market for production readjustment and transfer of funds. As pointed out in Premier Zhao Ziyang's report on the Seventh 5-Year Plan, the three aspects of the reform of the economic structure--enterprises with full management authority and responsibility for their own profits and losses, a well-functioning market system, and mainly indirect macroeconomic control--are a closely interrelated, mutually conditioning, and inseparable organic whole. Without the first two aspects, there can be no third aspect, and vice versa. Therefore, these three complementary aspects of the reform should go hand in hand, and it would be inappropriate to give prominence to one at the expense of another.

6. A model of macroeconomic management: Based on the previous discussion, I think, a socialist macroeconomic management system with the stress on indirect control is mainly a system of indirect state control and regulation of enterprises through the markets. It is an organic combination of the mechanisms of planning, marketing, and enterprises. It represents a conscious and comprehensive application by the state of the fundamental

socialist economic laws, the law of planned and proportionate development, the law of distribution according to work, and the law of value. A model of this system for the foreseeable future is roughly illustrated in the following diagram.



Key:

- |   |                               |
|---|-------------------------------|
| 1. State  | 5. Enterprise                 |
| 2. Planning                                     | 6. Indirect control           |
| 3. Economic, legal, and<br>administrative means | 7. Direct control             |
| 4. Market                                       | 8. Complete market regulation |
|   | 9. Feedback                   |

In the above diagram, the main line indicates indirect control. The state controls the markets (that is, the state regulates supply and demand and exercises "leadership" over the markets mainly by economic means and market parameters), and the markets guide the enterprises. At the same time, some direct state control over the enterprises is necessary as an auxiliary means. And, a small part of economic activities are completely regulated by the markets, which is a necessary supplement.

In reality, economic life is extremely complicated. To give prominence to the basic parts of the model, some omissions are made in the above diagram. For example, under "state," there are, but omitted in the diagram, central-level departments, local-level departments, departments in charge of overall management, and departments in charge of specialized management. Besides "enterprise," there are, but not shown, economic activities of individual consumers (which also receive guidance from the state through the markets). Also omitted in the diagram is the influence of economic contacts with foreign countries. These are omissions which should be noted.

7. The above-mentioned model is a model of macroeconomic management under the socialist system. All socialized large-sale production requires macroeconomic control. There are many similarities between the macroeconomic management of the capitalist countries and that of the socialist countries.



However, owing to their different social systems, the two also have significant dissimilarities. The socialist countries can consciously apply objective economic laws to formulate economic and social development plans and, on the basis of these plans, adopt economic, legal, and administrative measures and work through the market and enterprise mechanisms to achieve the goals set by the plans. Here, the socialist countries are faced with some great challenges unprecedented in the history of mankind: How to develop a commodity economy based on public ownership of the means of production? How can state enterprises, the main commodity producers, be made to assume full responsibility for their own profits and losses and exercise strict budgetary restraints? The answer involves finding an appropriate way of separating ownership from managerial authority and determining on a level of restraint that is rigid but fair. How and to what extent should a market system be built on the basis of public ownership? This involves finding a new type of socialist financial market and the question of whether there should be a labor market. Answers to these questions can only be found through a process of arduous studies and repeated experiments. Only when these problems are solved can a sound foundation be laid for indirect macroeconomic control. Macroeconomic management of the capitalist countries has some very different aspects than the socialist countries. There, enterprises which are responsible for their own profits and losses and markets which are essential for development are long-established and readily available conditions, and self-regulation of microeconomic units is an existing advantage for macroeconomic management. This makes it easier for their means of economic regulation to work. However, they are always troubled by the fundamental contradiction between socialized production and private ownership. In capitalist countries, government intervention sometimes takes on the appearance of a plan, but it is just intervention on a broader scale, mounted on the precondition that it will not jeopardise capitalist private ownership. We must make a serious effort to study the experience of capitalist countries in macroeconomic management and learn everything that is useful, but we must not copy their experience wholesale. Under the two different social systems, the nature and objectives of macroeconomic management are different. Also different are the circumstances in which it must function. Each must choose the ways and means suited to its own purposes and be flexible.

8. The establishment of a macroeconomic management system on the above-mentioned model in our country will be a step-by-step process. Not only will it take time to develop a planned commodity economy, but the country is handicapped by its low level of production, multiple-layered structure of productive forces, diverse forms of ownership and economic activities based on public ownership, large population, great consumption pressure, vast territory, and seriously uneven economic development. These characteristics make China different from even the socialist countries in Eastern Europe. Based on China's actual conditions, the transition from mainly direct to mainly indirect state control of enterprises will go through roughly three stages. In the first stage, direct control will play the leading role, and indirect control the supporting role. In the second

stage, direct and indirect control will assume equal importance. In the third stage, indirect control will play the leading, and direct control the supporting, role. At present, we are still in the first stage. How long the entire process will take depends mainly on the speed at which the enterprise and market mechanisms can be developed and improved, and the latter, in turn, depends on how much macroeconomic management can do in creating and maintaining a sound economic environment for the reform of the economy structure. The proportion of resources handled under direct state control can only be reduced as the proportion handled rationally by the market mechanism is gradually increased. Hasty change to indirect control based on subjective fervor alone before conditions are ripe not only will fail to achieve the expected results, but will cause the economic situation to get out of hand. It will again cause excessive growth in demands and disproportions in the economy, forcing us to make readjustments by returning to greater direct control at the expense of reform and construction. Of course, it is also wrong not to actively create conditions for changing to indirect control, or not to make the change in good time when conditions are more or less ripe. We must move forward with vigor and in a steady and orderly way, establish the new while destroying the old, leave no vacuums and loopholes, and strive to make the transition smoothly from mainly direct to mainly indirect control.

9. The present task is to actively create conditions for moving from the first stage to the second stage as soon as possible. As far as macroeconomic management is concerned, efforts should be concentrated on three areas: First, maintain a basic balance between total social demand and supply and achieve more effective state control over the markets. Second, expand the application of guidance planning and economic means to further invigorate the enterprises and make the activities of the microeconomic units better suited to macroeconomic development requirements. Third, strive to make macroeconomic decisions democratically and scientifically and to make better decisions. These three are the major conditions for the transition from the first to the second stage, and the major problems that must be solved for the transition from the second to the third stage and from the old to the new model.

### III. Central Task of Macroeconomic Management: To Maintain a Balance Between Total Social Demand and Supply in Terms of Quantity and Pattern

10. Macroeconomic management must serve both the reform of the economic structure and the change in economic development strategy. The Seventh 5-Year Plan covers a crucial period during which China's economic development strategy and economic structure are changing from the old to a new model. In view of the purpose of socialist production and the goals set since the 3d Plenary Session of the 11th CPC Central Committee, the concrete goals of macroeconomic management can be perceived as follows: 1. better economic performance; 2. a suitable growth rate; 3. a lower rate of price rise; 4. reasonable improvement of the people's material and cultural living standards; 5. balanced international payments; and 6. a sound

ecological environment. The first, better economic performance, should be the center of these goals. We often say that the task of macroeconomic management is to insure the planned and proportionate development of the national economy by maintaining an overall balance according to objective laws, particularly a basic balance between total demand and total supply in terms of both quantity and pattern. This is undoubtedly correct. However, balance itself is not the end, but a means. Under the same conditions, there can be different balancing plans. We should choose a plan best suited to China's actual conditions and the requirements of China's social and economic development strategies and structural economic reform. This is our starting point in discussing the balance between total demand and total supply.

11. Efforts should be made to develop a buyer's market with a slightly greater supply than demand. This is an essential condition for achieving the highly efficient "intensive type" of economic development and creating a good environment for the structural economic reform. Only when there is a buyer's market with a slightly greater supply than demand, will enterprises be forced to compete, improve quality, increase efficiency, and turn themselves from the "extensive type" into the "intensive type." Our purpose in reforming the economic structure is to develop the social productive forces and build a prosperous commodity economy. When goods are in short supply and cannot satisfy demands, we often are forced to impose highly centralized administrative control and order unified allocation, transfer, and direct distribution of goods, which are exactly what we should not do in developing a commodity economy. An important link in the reform of the economic structure is the reform of the price structure. For price reform to succeed, an environment with supplies slightly exceeding demands is essential. The state must have adequate reserve supplies on hand to keep the general price level from rising too much when control is relaxed. Otherwise, there is bound to be wave after wave of price hikes and inflation. Once this happens, normal order and activities of the commodity economy will be disrupted, and results of the structural economic reform will be neutralized. In our previous discussion on a model of macroeconomic management, we have already made clear that under the mainly indirectly controlled system of macroeconomic management, the state maintains control over the markets, and the markets give guidance to the enterprises. Here, the state's primary task is to maintain effective control of the markets. If market demands far exceed supplies, the state will be busy "putting out the fires" and land itself in a passive position, unable to control the markets effectively. The markets' price signals will be confused and distorted, and their giving guidance to enterprises will be out of the question. The state can actively and effectively control the markets and, through them as the medium, provide guidance to the enterprises, only when they are buyer's markets, or at least tend to become buyer's markets, with slightly greater supplies than demands.

12. There are different views about the desirability of a buyer's market with slightly greater supply than demand. In the early days after the

founding of the People's Republic, it was held that in a socialist country, demand always grew faster than production, which was a manifestation of the superiority of socialism. Not many people believe this now, but some comrades still think it is a driving force for socialist production growth. I think, the purpose of socialist production is to satisfy the people's growing material and cultural demands, but when effective demand gets far ahead of supply, it will cause price hikes, imbalances, and dropping economic returns, with a destabilizing effect on the people's livelihood. Far from being a driving force to the development of the social productive forces, it will dampen the people's enthusiasm for production. This has been proven by facts time and again since the founding of the People's Republic. In the past few years, there has been another theory which holds that China needs to have some financial deficits and inflation in order to stimulate the growth of a commodity economy. I think the theory is obviously irrelevant because it ignores the difference between the capitalist countries and China and assumes that measures used in the West under conditions of relative overproduction can work equally well in China where commodities are in relatively short supply. The theory has lost its appeal since 1985. However, since industrial production began to drop in the first half of this year, some comrades have suggested that it is the excessive control over demand that has caused the decline in industrial production. I think that after last year's "excessively high" growth rate, the 4.9 percent and 5.9 percent increase in total industrial output value in the first 6 months and July this year over the same periods a year ago have brought the overall industrial growth down to a more normal level. At present, production is slowed down mainly by shortage in resources (energy, raw and semifinished materials, and transportation, postal, and telecommunications services), irrational product mix, and large inventories of some substandard products, and not by normal demand. If the production of some goods has dropped, it is mainly because the once excessive demand for them has declined, or because they are unsalable in the first place. At present, the contradiction between supply and demand has eased up somewhat, but, on the whole, demand still exceeds supply and should be curbed further. To be sure, there are problems in our efforts to check demand: some want "uniform" control on everything; others are not going far enough. We should deal with these problems seriously and appropriately.

13. There are also different views about the possibility to develop a buyer's market with slightly greater supply than demand. Some comrades hold that just as a surplus economy is characteristic of capitalism, so is a shortage economy characteristic of socialism. I think that it is a fact that there has been a shortage of commodities for a rather long period of time, but the phenomenon is caused by the rigid economic system, the traditional development strategy, the lack of self regulation mechanisms for the microeconomy, and the lopsided pursuit of high growth rate by macroeconomic management. It does not necessarily have anything to do with the nature of socialism. Our current structural economic reform and change in development strategy are aimed precisely at solving this problem. We are confident that under the superior socialist system, with persistent exploration, the problem will eventually be solved.



14. The selection of a superior macroeconomic management plan: The three major tasks during the Seventh 5-Year Plan, namely, intensifying the reforms, pushing economic development forward, and improving the people's living standard, are at once in unity and conflict. The intensification of the structural economic reform will give added impetus to economic development, and progress in economic development will improve the people's living standard, but there is a time lag between them. Their conflict is focused on the distribution of the state's financial and material resources. Major reform measures require state financial support; national construction projects require a lot of money; and money is also needed to improve the people's living standard. At present, the conflict between the three is quite acute. Economically China is currently in a period of retrenchment following a spell of excessive demand. The current retrenchment is still in progress, and a new round of expansion seems to be arriving sooner than expected. The existing problem of excessive demand has yet to be solved, and new demands are already on the way. Investment in capital construction proposed so far by state enterprises and institutions has already far exceeded the target set by the Seventh 5-Year Plan. How to achieve a balance between total demand and total supply is a fundamental problem of macroeconomic management which must be solved. A choice can be made from the following three plans.

First Plan: The overextended construction scale must be firmly cut back, and consumption growth must be brought under control (the people's income cannot increase at a faster rate than national income). At the same time, we must readjust the production structure and increase production to the maximum possible extent, and we must be determined to make supply slightly surpass demand, build up the momentum and work step by step to develop a buyer's market, and create a sound and more relaxed economic environment for the structural economic reform.

Under this plan, the excessive scale of construction projects now under way will be sharply cut back. Not all construction projects are to be cut back. The key projects will be continued by all means, but duplicate and superfluous projects will certainly be reduced. Financial and material resources available to local authorities may be reduced for the time being, but the reforms will be accelerated. The crucial price reform can be carried out without triggering waves of price increases. The improvement of the market system can be accelerated. The enterprises can be further invigorated. The duration of the coexistence of two systems and the frictions therefrom can be shortened. The national economy can shift more quickly onto the new path. The "extensive" economy can turn more quickly into an "intensive" economy. As relations are being harmonized, and the enthusiasm of enterprises and workers heightened, the lack of "material strength" can be more than made up by "social strength" (with a time lag), and this will have a lasting impact.

Second Plan: The scale of construction continues to expand; consumption grows quite fast; and demand clearly exceeds supply. At the same time, the reforms are also making fairly quick progress. Under this plan, there will

be wave after wave of price hikes and inflation; enterprises will be unable to carry on normal reproduction; the markets cannot develop normally; and the results of the structural economic reform will, to a very large extent, be offset. The scale of investment in fixed assets is rather large, but the economic results are poor, and while such investment does not necessarily translate into "material strength," it most certainly undermines "social strength." Economic development will become even more "extensive." As a result, production, after rising for a while, will plummet, causing hardships to the people's economic life and foreign debts to pile up. Eventually we will be forced to turn back to make readjustments, and will then have no choice but to rely heavily on direct control and administrative means. Thus construction and reform will take a long, roundabout course (which is exactly what has happened in some Eastern European countries).

Third Plan: The overextended construction scale will be cut back somewhat, and consumption growth will be slowed down a little, but not enough to make a real difference. Total demand will continue to exceed total supply, and the reforms will be forced to slow down. Under this plan, "material strength" may grow a little more, but the two systems will have to coexist for a longer period. The results will be increased frictions and unstable prices, hindering the vigorous development of enterprises and markets. It will be difficult for economic development to change from "extensive" to "intensive." Economic relations cannot be straightened out quickly, and the enthusiasm among workers will be low, with an adverse effect on "social strength." The economy will remain anemic for a long time.

In real economic life, there is never a "perfect" plan. It is always a matter of choosing the greater good or the lesser evil. I think that the second plan is definitely undesirable, and the third plan is not so good either. That leaves only the first plan, which is better. It embodies the party Central Committee's policy of giving top priority to reform and is in keeping with the guideline of the 12th CPC National Congress of going slow at first and faster later on. In choosing a macroeconomic management plan, many people know that it is best to have a buyer's market with supply slightly exceeding demand. But it is easier said than done. One of the major difficulties is to set priorities among so many different demands, each of which is justified. As the old saying goes, "one must refrain from doing some things in order to be able to do other things." Serious efforts should be made to handle this important question properly from a long-range, overall strategic standpoint.

15. A structural balance should be strike between total demand and total supply. A quantitative balance between demand and supply is based on their structural balance. Of course, without a quantitative balance, there can be no structural balance either. There are indeed many problems in the demand and supply structure, and they must be solved. Some of these problems are historical problems; others are caused by normal changes in economic and social conditions; still others are caused by frictions and loopholes in the process of replacing the old system by the new. Effective

demands are expanding for both accumulation and consumption (expansion of accumulation was the main problem in the past). Owing to the objective limitations of resources, these expanding demands cannot possibly be satisfied. And the result is longer construction periods (only one-third of construction projects can meet a reasonable time schedule) and poor investment returns. At the same time, the people's surplus purchasing power is rapidly increasing. At present, the total amount of savings deposits and cash owned by urban and rural residents has far exceeded the total value of the commodity inventories of the commercial departments (including the unwanted, obsolete, damaged, and defective goods). Judging by actual data on accumulation and consumption, the accumulation rate is still too high. In 1985, accumulation accounted for 33.7 percent of national income. It should be brought down to less than 30 percent. The population pressure on consumption is mounting. Recently the rural population in many areas has gone out of control. Unless effective control measures are taken, China's population may grow by a large margin by the end of the century, and the newly added population will then demand even more consumer goods. As people's financial situation improves, they begin to make the transition from mere subsistence to a more comfortable way of life, and they will want different things for use and enjoyment. There is a serious shortage of working capital because funds are invested in fixed assets. Of investment in fixed assets, the proportion invested in nonproductive projects remains too large, and of the amount invested in productive projects, too small a proportion is invested in projects for expansion of reproduction by intensive means. Some so-called "equipment renewal and technological transformation" projects are actually capital construction. In supply structure, the product mix and services available fail to adapt to changing demands and consumption pattern. Some popular goods and small commodities are in short supply. So are brand-name products and high-quality durable consumer goods. Meanwhile, the markets are flooded with low-quality and inferior-brand products. Many kinds of services fail to meet the people's needs. The urban housing shortage remains critical. Special attention should be paid to the fact that agriculture, which is the foundation of the national economy, remains the weaker link in the production structure. In the industrial field, the energy, power, and basic raw and semifinished materials industries are still weak. Moreover, the small and technologically backward enterprises are competing with the large and medium-sized technologically advanced enterprises for funds and resources. It is for macroeconomic management to adopt appropriate measures to solve these problems step by step.

16. It takes time to form and develop a limited socialist buyer's market. In our socialist economy, a buyer's market cannot be consolidated before the firm establishment of the new economic structure and development strategy. However, we cannot wait for that to happen. If we choose the superior plan described previously to strengthen macroeconomic management, it is possible to establish such a more relaxed economic environment now, while the economic structure and development strategy continue their step-by-step transition. First we must build up the tendency toward establishing such an economic environment. In fact, such a tendency began to appear

in the early period of the Sixth 5-Year Plan. We should see that the factors which caused the expansion of investment and consumption under the old system and the idea of seeking an inappropriately high growth rate in the traditional development model can still cause problems. Because of this, it is all the more important for us to use the means provided by both the new and old systems to bring the growing investment and consumption demands under control and establish a limited buyer's market, thus accelerating the reforms and construction and hastening the demise of the old models and the growth of the new ones. In this way, we can gradually develop the mechanisms of self-regulation for the microeconomic units to keep demands in check and consolidate the buyer's market, thus contributing to the firm establishment of the new economic structure and "intensive" development strategy.

#### IV. Basic Method of Macroeconomic Management: Regulation and Control of Economic Operations Mainly by Economic Measures Based on State Plans

17. "State Planning is the basis for providing macroeconomic guidance to insure the proper development of the economy." This was pointed out clearly by Premier Zhao Ziyang in his report on the Seventh 5-Year Plan. A planned economy is the inevitable product of the combination of socialized production with public ownership of the means of production. State planning is the central link in the realization of a planned economy, a concrete expression of the strategic goals, tasks, principles, and policies of the country's economic and social development in a specific period. To achieve a basic quantitative and structural balance between total demand and total supply, the basic method of macroeconomic management is to regulate and control economic operations mainly by economic measures based on state planning. This method requires the close cooperation and concerted effort between two sides. On one side are the planning departments which set the correct targets and, at the same time, provide an overall plan for the proper use of economic levers to achieve them. On the other side are the economic departments which use economic levers to achieve the goals set by state plans. Lack of cooperation from either side will result in separation of plan targets from economic levers, and it will be impossible for the economy to operate according to plans.

18. State planning's top priority is to formulate an overall finance plan and an international payments plan and maintain an overall balance in financial, material, and manpower resources. While continuing to make plans on materials, population, and labor force, the planners should pay greater attention to plans on financial matters to meet the requirements in the change from mainly direct to mainly indirect state control of enterprises. The most important are the overall finance plan (a funds flow statement may be used as a reference to be improved and added on) and international payments plan. The overall finance plan, which includes five parts, state revenues and expenditures, credit receipts and payments, revenues and expenditures of basic units (enterprises, institutions, and government organizations), income and expenses of citizens, and balance of



payments deficit, gives a complete picture of the movement of social funds. In view of the increasing economic exchanges with foreign countries in the past few years and their growing impact on the domestic economy, it is also necessary to have a specific international payments plan to more clearly reflect and more effectively control China's international payments situation. Comrade Chen Yun has suggested since the 1950's that it is necessary to maintain a balance in state finance, credit, materials, and foreign exchange and a general balance among those different sectors. This is a successful experience which has been tested in practice. This experience should be enriched and developed in light of the changing economic conditions. In the past few years, with the implementation of the policy of invigorating the domestic economy and opening to the outside world, the proportion of extrabudgetary funds, as compared with budgetary funds, has risen greatly; (Footnote) (If the proportion of budgetary funds was 100, then the proportion of extrabudgetary funds was 35.6 in 1977, 81 in 1984, and 77.8 in 1985. Of the total extrabudgetary funds in 1985, for example, local revenues made up 4.6 percent; institutions and government organizations, 12 percent; and enterprises, 83.4 percent.) bank funds and the scope of their uses have much increased; and international payments have grown rapidly. All this underlines the importance and urgency in properly preparing and using the overall finance plan and international payments plan. The process of drawing up an overall finance plan is one of balancing total demand and supply quantitatively and structurally, solving the problem of distribution exceeding national income, and making supply slightly surpass demand, and one of properly handling the contradictions between consumption and accumulation, between living standard and construction, between investment in key projects and investment in ordinary projects, between economic construction and social development, between foreign exchange receipts and payments, and between raising and paying foreign debts. Based on the overall finance plan, well-coordinated, dovetailing, and generally balanced plans on financial, material, and manpower resources can be drawn up. In view of the importance and urgency of population control at present and for a long time to come, due attention should be paid to the preparation and implementation of population plans.

19. The preparation and implementation of the overall finance plan is a process of repeated practice and gradual improvement. Because the plan requires a great amount of complex and hard-to-get information from many fields, its compilation is rather difficult. Also, because it is an overall guidance plan, it cannot be effective without the support of a series of practical economic and administrative measures. It is a difficult job that must be done, particularly because of the urgent need of macroeconomic management to shift from direct to mainly indirect control. We can proceed from the easy to the difficult, take care of the most important parts of the job first (the parts on revenue, credit, and state-owned enterprises, now generally known as the combined revenue and credit plan) and then move into other areas step by step. To make the overall finance plan practical, we can incorporate various input-output tables and other relevant balance sheets

to link up overall financial targets with plans and measures of different departments. In the overall finance plan, special attention should be paid to five major targets: 1) revenues and expenditures; 2) money supply; 3) investment in fixed assets (overall scale and structure); 4) consumption funds; and 5) international payments. These five targets are of crucial importance to keeping total supply and demand in check and control of the markets, and they hold the key to effective macroeconomic management. Naturally the five targets must have appropriate economic, regulatory, and other means to be implemented.

20. State finances and tax revenues: State revenues and expenditures are the heart of the overall finance plan. They are also an important economic lever. Although state revenues make up only a small part of national income, they constitute the bulk of net national income and are at the state's unified disposal. Therefore, they occupy a decisive position in the overall arrangement of supply and demand. With regard to state finances and tax revenues, attention should be paid to the following: 1) With fundamental improvement of the financial and economic situation, a balance should be maintained between state revenues and expenditures with a small surplus. In case a deficit occurs under extraordinary circumstances, the financial departments may issue bonds to recall the surplus purchasing power caused by the deficit, and should not keep borrowing and overdrawing from the banks. 2) On the basis of economic growth and increased total state revenues and expenditures, the central government should take a reasonably larger proportion of the state revenues as a whole so that it can have what is needed to fulfill its responsibilities. Only in this way is it possible to solve the problem of the lack of investment funds for key construction projects, improve the investment structure, and give added impetus to economic construction; to provide the material backing needed to make many economic levers work; and to have the power to use economic measures to regulate and control local economic operations. 3) The role of the tax lever should be strengthened in checking the growth of demand, improving the investment structure, and increasing supply. Consideration should be given to the suggestion to change the construction tax into an investment orientation regulation tax and widen the range of tax brackets, reducing or exempting the tax burden on infrastructure facilities and goods in short supply and imposing heavy taxes on products in excessive supply. 4) Guidance and control over extrabudgetary funds should be strengthened. Locally generated extrabudgetary funds can be placed under the control of local financial departments. Institutions and government organizations should follow instructions on what to do with their extrabudgetary funds. Extrabudgetary funds belonging to enterprises should be guided mainly with economic levers.

21. On currency, credit, and interest rates: Currency issue is a comprehensive reflection of the movement of social funds. Currency issue, credit targets, and interest rates are all important economic levers. From the macroeconomic management viewpoint, attention should be paid to the following: 1) The volume of currency issue set by the overall finance plan

and approved by the State Council should be regarded as a mandatory target to be implemented by the head office of the People's Bank of China, and not to be exceeded. Loan targets should be kept under control. Loan targets for investment in fixed assets, in particular, should be strictly controlled.

2) To insure that the targets for currency issue and loan volume are not exceeded, the key lies in making enterprises repay debts to banks on time. For more than 30 years, the enterprises have repaid their debts if they could, and not if they couldn't, a practice that must be put to an end. In the current economic reform, it has been clearly spelled out that enterprises should have full managerial authority and assume full responsibility for their own profits and losses. In March 1985, the State Council promulgated the "regulations governing loan contracts," laying down for the first time the rules for handling enterprise failure to repay their debts. It should be strictly enforced. At the same time, the specialized banks should be commercialized step by step to assume greater economic responsibilities.

3) A socialist financial market with state banks playing a major role should be established actively and steadily to expand fund-raising and lateral capital flow. Appropriate measures should be adopted to strengthen guidance and control of the financial market.

4) The role of interest rates as an economic lever should be strengthened. Interest rates on deposits and loans should be raised. Nominal interest rates must be higher than the rate of price increase (the effective interest rate in 1985 was a negative number). Different interest rates should apply to different industries according to industrial policies, and some industries should be given discount rates. Interest on fixed asset investment loans should be paid out of after-tax profits retained by enterprises. This is not only in keeping with the Marxist principle on profit distribution, but links loans to the interests of the enterprises' workers and staff members, thus giving the enterprises a reason to use funds with greater efficiency.

22. On price: Under the conditions of a commodity economy, price is the most sensitive and wide-ranging regulator. The mainly direct control of the price system should be changed gradually to mainly indirect control to correct the seriously distorted price structure so that prices will bring generally accurate signals to producers and consumers. In reforming the price system and applying the price lever, attention should be paid to the following:

1) Price reform should only proceed when total supply is slightly greater than demand in order to keep the general price level basically stable or keep the rise in prices down to a tolerable level. The time it takes to reform the price system depends mainly on how much the state can do to keep demand under control, and the amount of financial resources the state is able to muster in support of the price reform.

2) Any price fluctuation will involve a redistribution of material benefits for many. Any price reform plan must first be strictly tested by the overall finance plan and other relevant supplementary balance sheets or mathematical models to show that it is not beyond the tolerance of the state, enterprises, and citizens and will achieve the expected results.

3) It is necessary to use market prices to quickly reflect changes in social labor, consumption, supply and demand, automatically regulate the internal mechanism of price parities,

and accelerate the rationalization of production and consumption. At the same time, it is necessary, through indirect control and necessary direct control, to reduce the market's blindness and prevent market prices from rising and falling sharply due to monopoly, speculation, abnormal mass psychology, or external factors, with a negative impact on production and consumption. Even capitalist countries control the prices of some commodities. For example, France announced on 23 December 1985 the lifting of price control on some industrial products, thus raising the proportion of uncontrolled manufactured goods from 80 percent to 85 percent.

23. It is necessary to make proper use of economic policies and various economic levers. It is necessary to make good use of the finance, tax, currency, credit, interest rates, price, wages, foreign exchange rates, and other economic levers. All these economic levers should be used flexibly and in support of each other. They can be tightened or loosened simultaneously or alternately, depending on the actual conditions. However, none of them can depart from national policies and plan objectives. It is imperative to prevent the economic levers from each going its own way and working against each other.

24. Mechanisms for guidance planning should be established through a special combination and application of plan targets and economic levers. As macroeconomic management turns to mainly indirect control, it inevitably calls for the planning system to turn to mainly guidance planning. Guidance plans do not use compulsory administrative means, but rely on inducement by material benefits. Some mechanisms must be established for guidance plans to work, and not become a mere formality. Based on some initial experience, mainly agricultural, I think that guidance planning should be a special combination and application of plan targets and economic levers, as described in the following.

First, based on a large amount of information, the state sets the targets for a guidance plan. At the same time, the planning department gets together with other relevant departments to jointly work out a plan on adjustments to be made to taxes, credit, interest rates, and other economic levers indispensable to achieving those targets (sometimes technical or material support is also needed), to be made public before the enterprises complete their own plans. This way the enterprises will know what they can expect to gain by following state guidance and will actively organize production according to the state plan. Once made public, the plan on adjustments to economic levers cannot be changed and must be fully implemented. Otherwise, the effectiveness of the guidance plan will suffer.

Second, do a good job in information feedback. The independently made plans of the enterprises should be gathered in good time and compared with the state plan to see how closely the guidance plan is being followed. If there are significant departures, some remedial economic measures should be taken, but in no case should an enterprise be forced to change its plan. In the meantime, lessons should be drawn from the experience so that improvements can be made to next year's guidance plan.



I call this practice a "special" combination and application of plan targets and economic levers because the plan targets and economic levers are combined in a special way that is both close and appropriate, made public beforehand and guaranteed of implementation. To meet the requirements of guidance planning, we must overcome many subjective and objective difficulties. But, unless we make every possible effort to meet these requirements, we will not have the necessary mechanisms to make guidance plans work, and guidance plan will not be worth the paper they are written on.

25. The legal means will play a more important role in future macroeconomic management. The expanding scope of guidance planning demands that more guidelines for economic relations and activities be codified in the form of law. Without the necessary legal standards to keep enterprises operating within the limits of law, it is hard to guarantee that they will insist on exchange of equal values, fair competition, paying taxes according to law, and doing business in an honorable way. Some abnormal phenomena in our economic life today are to a very large extent caused by the lack of a sound legal system. While strictly enforcing the laws already promulgated, we must work hard to enact basic economic laws to form a more complete system of economic laws and regulations so that all economic activities will have laws to follow.

26. Administrative means will be used less and less frequently, but necessary administrative means will be used at any time. Sometimes economic and legal means cannot produce the expected results promptly, and then it may become necessary to deal with the situation by administrative means. Also, many economic measures can only be implemented with administrative support. To be sure, administrative means itself needs to be reformed and improved. Efforts should be made to raise the scientific level of administrative means and use it in close coordination with economic and legal means.

#### V. Democratic and Scientific Macroeconomic Decisionmaking Is an Important Part of the Macroeconomic Management System.

27. The objective necessity of democratic and scientific macroeconomic decisions: Whether a macroeconomic decision is correct, and how correct it is, is of vital importance to macroeconomic management, especially in a socialist country. Because most macroeconomic measures are based on the state plan, it is of vital importance that the state plan itself is basically in keeping with China's actual conditions and the objective laws. For this reason, the decisionmaking process should be democratic and scientific in order to make better macroeconomic decisions.

28. It is necessary to improve the concept, system, and method of macroeconomic decisionmaking, particularly planning decisions. It is necessary to greatly strengthen the economic and social information, S&T information, consultation and appraisal, inspection and supervision, and information feedback organizations; energetically develop software technology and build up government, semigovernment, and private software industries step by step;

train specialized personnel in various fields needed for macroeconomic decisionmaking and improve and upgrade the knowledge structure and level of the staffs in decisionmaking organizations; and carry forward the party's fine tradition of proceeding from the actual conditions, conducting investigation and study, and following the mass line, encourage people to proceed from the national interest as a whole, and properly handle the relationship between the whole and the part.

29. It is necessary to establish and improve a sound decisionmaking system step by step. This system will include information, appraisal, decisionmaking, executive, coordination (vertical and horizontal coordination), supervision, feedback, and other links. Under unified central leadership, the proper role of the localities and departments should be brought into play.

30. It is necessary to keep exploring and practicing. How to establish a macroeconomic management system with mainly indirect control and combine the planning mechanisms with the market mechanisms--this is a major question now being explored on an international scale. Solution of this problem will be a new contribution to socialist economic practice and theory and a new development of Marxism.

12802/12851

## CHINA ISSUES BONDS TOTALING \$2.1 BILLION ABROAD

Shanghai SHIJIE GUOJI SHANGBAO in Chinese 12 May 87 p 1

[Text] According to statistics supplied by the relevant departments, the 21 bonds totaling \$2,188,970,000 issued by China in such international capital markets as Tokyo, Hong Kong, Frankfurt, and Singapore represent a major channel for raising foreign capital.

Private bonds amounting to 10 billion yen issued in Tokyo by the China International Trust and Investment Co in January marked the beginning of the raising of funds by China through the issue of bonds in the international capital market. Up to the present, institutions which have issued bonds abroad for raising funds include the Bank of China, the China International Trust and Investment Co, the Guangdong International Trust and Investment Co, the Shanghai Investment and Trust Co, the Fujian Investment Enterprises Co, and the Tianjin International Trust and Investment Co. The amount of bonds issued in recent years has increased each year. Whereas the amount of bonds issued in 1982 came to \$43.58 million (according to the conversion rate on the date of transaction), it came to \$20.23 million in 1983 [as published], \$83.17 million in 1984, \$786.46 million in 1985, and \$1,255,530,000 in 1986. By the end of 1986, China had issued 21 bonds in the international capital market totaling \$2,188,970,000. Of that amount, 7 bonds amounting to \$1,117,470,000 were issued by the Bank of China in Tokyo and Frankfurt; 7 bonds amounting to \$630.140 million were issued by the China International Trust and Investment Co in Tokyo, Hong Kong, and Frankfurt; 3 bonds amounting to \$120.02 million were issued by the Fujian Investment Enterprises Co in Tokyo and Singapore; and one bond each was issued by the Guangdong International Trust and Investment Co, the Shanghai Investment and Trust Co, and the Tianjin International Trust and Investment Co amounting to \$128.58 million, \$131.03 million, and \$61.73 million, respectively.

Among these were 13 bonds in Japanese yen amounting to \$1,494,060,000, 68 percent of the total; 4 bonds in American dollars amounting to \$500 million, 23 percent of the total; 2 bonds in German marks amounting to \$105.04 million, 5 percent of the total; and 2 bonds in Hong Kong dollars equivalent to \$89.87 million and constituting 4 percent of the total.

Since the beginning of this year, the China International Trust and Investment Co has issued various types of bonds in Tokyo and Hong Kong amounting to 60 billion yen, while the Bank of China has issued bonds amounting to \$200 million in Singapore.

In view of the needs for our economic development, the issue of bonds in the international financial market will remain a major method for raising foreign capital. It is our understanding that the funds raised by issuing bonds abroad will mainly be used for major construction projects of the state and for the establishment of joint enterprises. Some of the projects have already achieved some initial success.

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## PRICE REFORM PROBLEMS, PROSPECTS DISCUSSED

Beijing JINGJIXUE ZHOUBAO in Chinese 31 May 87 p 4

[Article by Xiao Li [5135 0500]: "How To Proceed With Further Price Reform: a Seminar Sponsored by the Shanghai Youth and Adult Price Study Group"]

[Text] The Shanghai Youth and Adult Price Study Group, a group organized by researchers and educators specializing in price studies, recently sponsored its first seminar, and comrades who deal with product prices in various units were invited to attend. Zhang Hongming [1728 3126 6900] and Chen Li [7115 7812] from the Economics Department of Shanghai's Social Science Academy gave a lecture at the beginning of the seminar entitled "The Problems and Prospects of China's Price Reform," which was followed by broad discussions on the subject.

"The Problems and Prospects of China's Price Reform" expressed the viewpoint that 8 years of price reform has lent momentum to economic reform and development, but now price reform is in trouble: some agricultural products are facing readjustments, and it is unlikely that price reform of producer goods will be implemented in full. In addition, product prices are going up in waves, and the consumer price index continues to rise. Price reform is in trouble for two reasons: 1) loss of overall control and supply and demand disequilibrium: the root causes of these can be traced to excessive investments and reckless pursuit of high growth rates; 2) reforms are hampered by lack of thoroughness, stalled enterprise profits, slackened financial control among enterprises, and inflexibility in the management and pricing of essential productive elements. Of course, there are also inherent mistakes in the reform process.

No doubt price reform must continue. We must sum up what has been accomplished so far, and improve on our knowledge and our methods. First, we must clearly understand that price reform is not the key to economic reform, rather it is a very active ingredient, and a driving force, which interacts with economic reform. Second, we must improve the overall condition for price reform: the overall condition conducive to further price reform is made up of society's supply and demand conditions as well as the country's revenue and expenditure. Economic abundance can be attained only after reform; for now we have to implement reforms amid meager circumstances. The important measure for improving the overall condition for price reform is to emphasize both construction and



reform, but construction must defer to reform. Demands for improving the people's living conditions can be met to the extent they are compatible with the reform. Furthermore, we must redefine the relationship between the state, local governments, and enterprises concerning allocations.

The objective of price reform is to establish certain rational price system and pricing mechanisms (control system). A rational price system is established when prices generate supply-and-demand equilibrium; it cannot be established in advance. A rational price-control system entails government intervention but relies primarily on market prices to form a systematic and diverse control system. Price reforms must first deal with the two basic categories: producer goods and agricultural products. Reform of producer goods prices should emphasize price adjustments but at the same time combines adjustments with decontrol, and should proceed as follows: 1) choose an opportune time to adjust one series of prices at a time; aim for efficiency, and create sufficient impact; 2) quicken or slow the pace of reform as necessary, but move forward every year. Regarding agricultural product prices, we must first understand that the scissors-like movement of agricultural product prices is a long-term problem which can only be solved gradually, and reform should be in the form of frequent but modest adjustments. At the same time, we must encourage intensive farming, and use industry (sideline products) to subsidize agriculture to a greater extent. Prices of other products, labor, and services should be adjusted or decontrolled when feasible.

Price reform must fully anticipate chain reactions. Chain reaction does not imply full-scale inflation, but prices of producer goods and daily necessities will tend to increase. For consumers as a whole, living standards should be raised, but at a moderate pace. Accordingly, when the price of basic necessities rises the consumers must be fully compensated, and when the price of non-essential goods rises we must consider linking wages to product prices. This requires scientific measurement of the consumer price indices. As far as enterprises are concerned, they should behave rationally and with restraint as prices undergo various changes. Therefore, reforms should be comprehensive and coordinated, and this means focusing on the lack of production and operation responsibilities and financial restraints among enterprises, as well as on increasing the mobility of productive elements.

Comrade Li Wenzhong [2621 2429 1813] maintained that we need further studies before declaring price reform in jeopardy. For example, this year prices of producer goods did change although it took the form of decontrol which had a significant effect on user-enterprises. He also pointed out that the biggest problem facing the present price reform is the unfavorable climate: since the state handed down its power, provinces and cities have intensified their efforts to set up regional barriers, and the country is deprived of a unified market. Furthermore, labor, land, capital, and other productive elements are not commodities and cannot be effectively manipulated by prices. In addition, the cadres are ill-qualified, and many primary-level cadres have little business know-how; they can only follow instructions from above and cannot handle economic tasks. In short, price signals have become ineffective.

Comrade Li Fan [0632 3879] pointed out that the loss of overall control cannot be remedied immediately, because old management techniques have broken down since the devolution while new techniques have yet to be established, and macro-economic control measures are inadequate. Price reform cannot proceed without first tackling regional barriers, financial reform, and other problems.

## CHINA LOOKS TOWARD ENTERING U.S. BOND MARKET

Shanghai SHIJIE JINGJI DAobao in Chinese 8 Jun 87 p 10

[Article by Wei Qun [7614 5028]: "China Can Look Forward To Entering the U.S. Bond Market"]

[Text] A ruling was made by the U.S. Supreme Court on 9 March of this year not to review the decision made by the 11th U.S. Federal Circuit Court on the case concerning bonds issued by the Hunan-Guangdong Railway, thus bringing an end to the dispute which had dragged on for 8 years and removing a major legal obstacle to our entering the U.S. bond market. As a major bond market in the world, the United States offers an inviting incentive to our banking and financial institutions. Although bonds have been issued by China on more than 10 occasions in such countries and regions as Japan, the FRG, and Hong Kong since 1982, they have yet to break into the U.S. market. One of the legal obstacles was the number of pending cases concerning the payment of reparations for bonds issued by the Chinese Government that were being dealt with in U.S. courts of law, the most outstanding of which was the one concerning bonds issued by the Hunan-Guangdong Railway. According to the relevant laws of the United States, the plaintiff who has won a lawsuit has the right to withhold the proceeds derived from new bonds issued by China to make good for the amount of reparation to which he is entitled as determined by the court.

In 1982, a ruling inimical to the interests of China was made in absentia by the Federal Court of First Instance in Alabama. In 1983, however, when the case was reviewed, the original verdict was overturned on the ground that the court had no jurisdiction over the case. Raising objection to the ruling, the plaintiff appealed to the 11th Federal Circuit Court which upheld the ruling favorable to China made by the Court of First Instance in July 1986. While the case was being heard, the plaintiff maintained that the court had jurisdiction over the case in view of the fact that, according to the provisions of the "Law Concerning the Immunity and Sovereign Rights of Foreign Nations" passed by the United States in 1976 and which came into effect in the same year, China was not entitled to immunity while engaging in commercial activities (the issue of bonds). The court, however, held the opinion that according to international law, the law in question did not have the retroactive power to alter the principle regarding the sovereign rights of foreign nations and that that was borne out by the wording of the law, the way the law was applied, and the historical background leading to the enactment of the law by Congress and that,

for that reason, the law did not apply to the issue of bonds by China which took place over 70 years ago. Thereupon, the bond holders who lost the case appealed to the Supreme Court to review the decision made by the 11th Circuit Court. On 9 March 1987, the decision was made by the Supreme Court not to review the case. As a rule, only some 10 percent of the requests for reviews was approved in any given year. Cases which fail to be approved by the Supreme Court for review are in effect subject to the final decision made by the court of appeals in question. It is a matter of practice that, among law courts within the same system, courts of a lower order usually abide by the decisions made by the higher courts in dealing with the same lawsuits.

Is there a precedent for bond holders who have lost their cases to appeal to other federal law courts? According to the principle in American law that "the same case cannot be tried twice," the party that has lost an appeal due to procedural obstacles and the fact that the court did not have the opportunity to hear the substantive aspects of the case still has the right to take further legal proceedings. For this reason, the plaintiff in the case involving the issue of bonds by the Hunan-Guangdong Railway may in a sense be said to have lost the case because the court had made the procedural decision that it had no jurisdiction over the case. For the same reason, therefore, it is still legally possible for the plaintiff who has lost the case to appeal to other federal courts (this case can only be dealt with by federal courts).

In actual practice, however, American law is such that the law courts under one system usually accept the judgments handed down by those under another system. Furthermore, due to the political overtones of the case, the court in question is likely to exercise extreme care not to hand down a decision prejudicial to the interests of China in a hasty manner.

To sum up the above, the conclusion of the case involving the issue of bonds by the Hunan-Guangdong Railway has removed the danger of having the proceeds from the issue of bonds by China in the United States impounded by American courts and prospects are bright for China to break into the American bond market.

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## UNDERSUBSCRIBING BY FOREIGNERS DUE TO DIFFERENT CONCEPTIONS

Beijing CAIZHENG YANJIU [FINANCIAL RESEARCH] in Chinese No 3, 28 Mar 87 pp 4-11

[Article by Han Jidong [7281 4949 2639], Tianjin Academy of Social Sciences: "On Registered Capital and Enterprise-supplied Capital in Sino-Foreign Joint Ventures"]

[Excerpts] I. The Concept of Registered Capital and Total Investment, and the Concept of Enterprise-supplied Capital and Loan Capital

According to the regulations for implementation of China's Sino-Foreign Joint Venture Law, the registered capital of Sino-foreign joint ventures refers to the total amount of capital registered in industrial and commercial organizations to establish joint venture enterprises, and this registered capital must be the sum of the subscribed investment of each party of the joint venture. The investor's percentage of the registered capital (or percentage of stock held) determines the investor's controlling interest in the enterprise, and thus most countries regulate the percentage invested. The controlling interest of a foreign investor cannot exceed 49 percent, or cannot exceed a certain percentage, the goal being to prevent foreign capital from playing too dominant a role in a nation's economy. In order to attract more foreign capital, China has only set limits on the minimum percentage that a foreign business must invest (25 percent), and has not stipulated an upper limit. Libya, Algeria and other countries have similar regulations. In order to attract foreign capital, East European countries and India have also in recent years been flexible when setting an upper limit on the percentage that a foreign business may invest.

The total investment refers to the sum of the capital construction funds and circulating funds required for construction in accord with the regulations of the joint-venture contract. This includes the amount invested by all parties and the fixed-asset loans and circulating-fund loans of the joint venture enterprise. As mentioned above, China's Sino-foreign Joint-Venture Law stipulates that the sum of investment of each party of the joint venture must be equal to the registered capital. Therefore, the total investment is equal to the sum of the registered capital and loan capital.

Experience from running Sino-foreign joint ventures in recent years has shown that foreign businesses are not subscribing their registered capital, that is, the amount that they are actually investing is less than the total registered capital. Some of China's theorists feel that this phenomenon of under-subscribing by foreign businesses is an unhealthy tendency because the fact that the actual investment of foreign businesses is less than the stipulated percentage of registered capital means that loan capital must be increased. Thus, when an enterprise turns a profit, the foreign business earns a fairly large yield from a relatively small investment. When an enterprise suffers a loss, it must increase its loan capital because the foreign business invested a fairly small amount. If the enterprise's loans are guaranteed by the Bank of China, that means that the risk is thrust on the Bank of China. Thus, we should improve our supervision of the registered capital of joint-venture enterprises. Subsequently, China's relevant departments prescribed the proportion between registered capital and total investment. Some local departments and foreign businesses, however, are greatly opposed to this proportion. This is particularly true of foreign businesses involved in small and medium-sized enterprises; they feel that this proportional requirement serves as a disincentive to come to China to invest. How should we deal with this problem?

I feel that it is necessary to improve supervision of registered capital. Because joint ventures are a legal entity in China, they must abide by China's Sino-Foreign Joint Venture Law. We should carefully analyze why foreign businesses are not abiding by relevant regulations and are reducing the actual amount that they invest. To be sure, foreign businesses are attempting to lower their actual investment in order to reduce their own risk. The problem, however, is the lax control on our side: when negotiating contracts, we often do not make who is responsible and at what time for the total amount to be subscribed. Another reason for the problem described above is that the concept of registered capital is different abroad than it is in China.

In foreign countries, the total amount subscribed by each party of the joint venture under certain conditions is not necessarily equal to the registered capital. So-called registered capital means that when a new company is established, it must append a statement when it applies to register as an enterprise, and it uses this statement to indicate the amount of capital that it wishes to register. This is what is usually meant by registered capital (it is also called statutory capital or authorized capital). The actual amount subscribed can be less than the registered capital, and when a company expands and needs to increase the amount invested in order to achieve its total registered capital, it is not necessary to register with the registration organization. (Footnote 1) (Cf. Mi Shuhang [4717 6615 2635], "Conceptual Issues in the Sino-Foreign Joint-Venture Enterprise Law" in GUOJI JINGJI HEZUO [INTERNATIONAL ECONOMIC COOPERATION] No 11, 1986)

Because they have a different understanding of the concept of registered capital, some of China's theorists are accustomed to equating the amount of registered capital with the amount of investment, and they equate the transfer of investment with the transfer of registered capital. Because they equate registered capital with the amount invested, they feel that the distribution of registered capital is the basis for the distribution of the profits of joint-venture enterprises and defines each partner's extent of economic liability. Moreover, the Sino-foreign Joint-Venture Law clearly points out: "Joint-venture enterprises are limited liability companies. The liability of each party of a joint venture is determined by the amount it subscribed." The regulations of foreign countries concerning this issue are basically the same as those in China. Thus, strictly speaking, we cannot say that registered capital defines the limit of liability. In addition, of the registered capital, it is only the amount invested that can be transferred, because a transfer is usually the action of only one party at a time. Even if both sides transfer at the same time, or if a portion of the investment is transferred, resulting in an increase in the liability of one party or if each side completely transfers its investment and withdraws from the joint venture, the amount transferred by each partner in any case, is still the amount of its own investment.

Once this is clear, you then know that the ratio between registered capital and total investment is actually the ratio between the amount invested and total investment. It should be pointed out that the proportion between registered capital and total investment is formulated over the life of the venture and is a post-facto proportion. During negotiations to establish joint-venture enterprises, it is quite difficult to precisely arrive at this proportion. Even if arrived at it is only an estimate, and this figure may well differ from the one that materializes later on. This is because the circulating capital in the total investment is a variable amount and the fixed capital changes when market conditions change. Looking at this situation worldwide, most countries have no legal sanction concerning the ratio between total investment and registered capital. Under market conditions and in accordance with the principles of liability in management, how much of the investment in an enterprise is comprised of loans and how much an enterprise is able to borrow is a matter between enterprise and creditor, and the government usually does not involve itself in this area. The creditor decides whether or not to lend funds based on the specific circumstances of the loan. The creditor will lend the funds if the enterprise has good prospects for development and even if the enterprise has very little capital of its own. Therefore, when foreign countries control the amount of investment they usually use the proportion between an enterprise's own capital and loan capital. They do not use the proportion between total investment and registered capital.

Enterprise-raised capital refers to the total capital invested by each party to the joint venture enterprise and is equal in amount to the total invested by all parties. Thus, enterprise-raised capital is not necessarily the same as registered capital, just as the investment of each party is not necessarily

the same as its registered capital. Nevertheless enterprise-raised capital is different from the amount invested because the investment funds come from many different sources, including, possibly, loans. The amount invested is not necessarily from the enterprise's own coffers. According to China's current regulations, when Chinese investors subscribe their registered capital, only 35 percent of the total has to be their own while the remainder can be bank loans. Loan capital refers to the capital that a joint-venture enterprise borrows from a bank or other financial institution. The ratio between an enterprise's own capital and loan capital can roughly reflect the amount of capital that the enterprise itself possesses.

Some comrades currently believe that internationally, the ratio between registered capital and total investment is from 1:4 to 1:9. These figures can be found in "Sino-Foreign Joint Ventures" by Wang Yihe [3076 0001 9679] et.al., of the Shanghai Academy of Social Sciences. Wang points out on pages 148-149 of this book: "In the United States, the [ratio] between loans and capital usually does not exceed 3:1, that is, capital being the "1" and loans being the "3". Those enterprises with a stronger financial foundation may have a ratio of 4:1. Japan's case is somewhat unusual. There the ratio reaches 9:1. This is because the banks and enterprises are mutual owners. Normally, loan capital is always larger than capital stock; a fairly low ratio is 6:4, and a fairly high ratio is 7:3 or 8:2." Clearly, the data cited in the book discusses the proportion between an enterprise's own capital and loan capital. Those comrades who apply the concepts behind this proportion to the proportion between registered capital and the total investment are in error.

### III. Suggestions

1. In light of the fact that the understanding of the concept of registered capital is different abroad, when negotiating and signing contracts with foreign businesses, we should explain to the foreign businesses China's conception of registered capital as it is meant in China's joint-venture enterprise law. We should try to obtain the understanding and agreement of foreign businesses so that both sides can comply with the law and uphold China's legal sanctions. We should define clearly who is responsible at what time for what proportion of the investment put in, the amount subscribed and the amount actually subscribed and put in. Clarifying all this will allow us to improve supervision of registered capital and make fuller use of foreign capital.

2. At the same time that we uphold the aforementioned principles, we must also allow a certain flexibility, and temporarily allow the amount invested in projects involving advanced technology or that lead to expanded production of export commodities to be less than the total registered capital. We must be particularly flexible in the capitalization of projects with advanced technology but that are relatively risky because the technology is still in the developmental stage. Risk always exists; the key is in how to avoid it. We must uphold our principles for the average type of project, such as service joint-ventures, and ensure that the amount invested is equal to the registered capital. We can guide the direction of foreign investment by means of such differential policies.

3. Because there are numerous factors that affect the amount of the total investment, during negotiations it is also quite difficult to determine the proportion between registered capital and total investment. There would be much greater legal sanction for this proportion if the law specified what it should be. In addition, the total registered capital is comprised of the investment amount subscribed by each party, yet sometimes, there is a discrepancy between the amount of subscribed investment and the realized investment. Therefore, the proportion between the registered capital and the total investment cannot accurately reflect the capital structure of a joint-venture. I suggest we use the proportion between an enterprise's own capital and loan capital as a substitute. Not only does this conform to international practice and is easy for foreign businesses to accept, but it also allows us to use supervisory and regulatory roles of financial institutions.

4. We should adopt flexible, preferential policies to attract foreign businesses to increase the amount that they subscribe. When the amount subscribed exceeds a certain level, we can allow preferential treatment, such as lower land use fees, rapid depreciation, Western methods for appraising the price of existing stock, and extended tax-free periods. This issue is very much a matter of policy and one that we should explore.

5. Because circumstances surrounding each of the aforementioned suggestions are quite varied and because registered capital is not a significant matter of principle, the CPC Central Committee should not make a unified, specific regulation. Localities or departments can enforce their own regulations based on their own circumstances. This is especially true for small and medium-sized projects involving less than \$3 million. In such cases, localities can make their own decisions regarding regulations. In short, the goals in implementing these policy-type readjustments are to make China's investment environment more in accordance with international standards, establish an "imitation international investment environment," improve implementation and enforcement of the State Council's "Regulations on Encouraging Foreign Investment," and initiating a new outlook in the use of foreign investment.

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## MORE INCREASES IN EXPORTS OF LIGHT INDUSTRY PRODUCTS URGED

40060849a Beijing GUOJI SHANGBAO in Chinese 9 Jul 87 p 1

[Article by Wang Yixia [3769 0181 1115]: "Light Industry Exports Reach All-Time High; Changing From 'Having to Export' to 'Being Eager to Export'"]

[Text] During the first 6 months of this year China's exports of light industry products amounted to \$278 million, an increase of 40 percent over the same period last year. These are the best results attained for Chinese exports of light industrial products since the founding of the nation.

Among the exports of light industry products, there were substantial increases in the following: plastic goods, toys, boxes and packages, jewelry, special handicraft products, furniture, leather clothing, carpets, shoes, writing implements, drawnwork, bicycles, and bicycle parts.

Light industry products constitute a major part of China's exports, they make up 20 percent of China's annual total volume of exports. In recent years, as production in industrially advanced countries has moved toward capital-intensive areas, competitive superiority of labor-intensive products has shifted toward developing countries and regions which pay low wages. In addition, the devaluation of the U.S. dollar and the revaluation of the Japanese yen and the mark have intensified the process of readjusting the international product mix. In order to adapt to these changes in the international market, China has actively adopted measures which have vigorously promoted exports of light industry goods.

The measures adopted during the past year include the following:

--A series of preferential policies and incentive measures formulated by the state for the export of light industry products, particularly the export of such products from coastal regions. They were designed to positively and genuinely motivate light industry production enterprises and to bring about a change from the passive state in which the state "demands that we export" to the active state in which "we want to export."

--Measures to expand the export mix of light industry products from semi-processed goods to finished goods. A production system for exports of mechanical and electrical light industry products has been formed in Shanghai,

Tianjin, Jiangsu, Zhejiang, Shandong, Liaoning, Guangdong, and key coastal cities. The system consists of 37 export base enterprises and 126 enterprises with expanded foreign trade autonomy. As a result, last year exports of mechanical and electrical light industry products brought in nearly \$1 billion in exchange or 20 percent of all exchange earned by light industry exports. There was an upsurge in exports of household appliances, in particular. Last year, in contrast to 1985, refrigerator exports increased 1.5-fold, exports of washing machines increased more than sixfold, and exports of traditional appliances such as electric fans, electric cookers, and electric irons have also grown substantially.

--The state has also substantially increased investments in light industries. This year, in order to support the expansion of exports of light industry products, the State Economic Commission has increased interest payment loans 400 million yuan beyond state plans. This is primarily used for the technological transformation of export enterprises and 140 transformation projects have already been arranged for this year. In order to support key light industry and textile export enterprises, the State Planning Commission has adopted a target of 2 billion yuan for capital construction. They have set up leading groups and bidding offices, adopted the method of inviting bids and selected short, appropriate, and speedy capital construction export projects. This year 16 light industry export enterprises won bids during the first round of bidding. Moreover, the Office of Electronic and Mechanical Industries in the State Council issued nearly 100 million yuan in credit this year to the Ministry of Light Industry to support the export base for mechanical and electrical light industry exports and to support export enterprises with expanded autonomy.

--The export of intermediate products has begun to receive attention. The international division of labor based on specialization has gradually intensified and the international assembly of products has become more widespread with every passing day. Consequently, increasing the export of intermediate products, such as spare parts and parts to be assembled, will contribute to improving the export structure of light industry exports and become an effective way for expanding exports. During the first half of the year China's exports of bicycle spare parts amounted to one-half the total exchange earned by exports of entire bicycles.

--Every effort has been made to expand the export of light industry products on the international market. In the past a considerable number of exports of China's light industry products went through Hong Kong. At present, foreign trade departments and enterprises with foreign trade autonomy have been able to penetrate every corner of the world market.

Based on the recommendations of its deputy minister, Wang Wenzhe [3769 2429 0772], the Ministry of Light Industry convened a telephone conference of department and bureau heads. They looked upon export exchange earnings as the means for vigorously developing light industry. Since then, the entire system of light industry has been mobilized. The Ministry of Light Industry has already confirmed support for the four major categories, namely, leather and leather goods industries, mechanical and electrical light industry goods,

industrial arts, and food industries, as the key targets for bringing in exchange through exports. During the second half of this year, while continuing to implement policy measures for supporting exports, we will formulate specific strategic objectives, strategic key points, and strategic measures at the same time as strengthening the establishment of the source of raw materials for light industry.

9864/12859



## PROGRESS IN CHINA'S OVERSEAS INVESTMENT

40060877b Beijing GUOJI SHANGBAO in Chinese 21 Jul 87 p 1

[Article: "Progress in China's Overseas Investment to Set Up Enterprises Results From Sizing Up Situations, Seizing Opportunities, Actively and Cautiously Exploring Development"]

[Text] This reporter has learned from the just concluded Second All-China Overseas Enterprises Work Conference, and from an academic symposium, that during the 8 years from the end of 1979 to June 1987, China approved the setting up abroad of more than 300 noncommercial enterprises of various types. Total investment has been greater than \$500 million, of which a little more than one-half was put up by the Chinese side. More than one-half of the enterprises have begun operating.

These overseas noncommercial enterprises are located in 53 countries and regions on 5 continents. The enterprises play an active role in helping China utilize overseas resources, introduce advanced technology, promote equipment, materials, and technology exports, expand exports of contract projects and labor services, increase foreign exchange income, and train personnel. For example:

-- Cooperation in deepsea fishing has developed quite rapidly. By the end of 1986, the China United Aquatic Products General Corp. had been established, with 32 fishing boats belonging to 7 subordinate ocean fishing companies in Yantai, Zhanjiang, Zhoushan, Shanghai, Dalian, and Fujian. These companies were engaged in fishing production and management activities in the waters of eight countries including Sierra Leone, Guinea-Bissau, Senegal, Gabon, Iran, and the United States. Altogether, 11 wholly foreign-owned enterprises, joint ventures, or contractual joint ventures have been established. They have produced more than 40,000 tons of fishery products, and have shipped 7,000 tons of such products back home to supply large cities, such as the nation's capital, to satisfy balance of foreign exchange prerequisites.

-- Jointly operated industrial and agricultural enterprises devoted to production have begun to show a profit. By the end of 1986, China had approved setting up abroad a total of 82 jointly operated industrial and

agricultural production enterprises, 54 of which formally have gone into operation, and many of which have begun to turn a profit. For example, the Hong Kong-Shanghai Knitting Corp. was set up in Mauritius by the Shanghai Foreign Economics and Technology Cooperative Corp. through a joint capital effort. Because the personnel detailed by the Chinese side were well-versed in both technology and management, and because they cooperated well with the Mauritius people, quite satisfactory economic returns were achieved in less than 1 year.

-- Enterprises combining industrial and technical trade, and those providing consultative services, have achieved fine overall results. Most of China's 36 jointly operated enterprises set up abroad engaged in technico-industrial trade or consultative services are in developed countries and in the Hong Kong-Macao district. The Hong Kong Lidashi [0448 6671 2514] International Development Corp., set up as a joint venture by the North Industries Corp., has exported tens of thousands of tons of explosives since beginning operations in July 1982, and product sales have risen more than 40 percent over those when the Hong Kong market was not available. Markets have now been opened in Southeast Asia, Oceania, and Western Europe. Over the last few years, this corporation has earned for the state nearly \$100 million in exchange. Furthermore, China has dispatched software technicians to its jointly operated software corporations set up in the United States and Japan. These people are engaged both in drawing up software, and in studying software technology. This approach not only enables the Chinese side to train software technicians and keep abreast of the direction of S&T development abroad, it enables us to earn foreign exchange for the state as well.

-- The economic performance of communications and transport enterprises has been quite good. The China Long-Distance Ocean Transport General Corp. and the Foreign Trade Long-Distance Transport General Corp. have set up 21 joint ventures abroad and in the Hong Kong-Macao district, which mainly are engaged in sea route and joint land-sea transport, ship maintenance and repair, and materials supply. These joint ventures enjoy a fine reputation, are under capable management, and have the means to carry on their operations. China's participation in these joint ventures has helped to develop its ocean transport capability and to increase its market share.

-- Contract engineering companies have helped to expand exports of contract projects and labor services. Chinese companies concerned have set up 15 jointly operated contracting companies in countries such as Nigeria and Cameroon. The Pacific Construction and Development Corp., set up in Guam by the Jiangsu International Co., has produced quality work at a rapid rate. It is highly regarded by the merchants and many of them have sought it out to undertake numerous engineering projects.

12513/9599

## AGREEMENTS ON EXPORTS, COOPERATION REACHED IN HEILONGJIANG

40060894b Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 31 Jul 87 p 3

[Article by Liu Changjin [0491 1603 6855]: "Foreign Economic Negotiations in Heilongjiang Successful; Agreements Reached for Exports of \$50 Million and for Over 30 Economic and Technological Cooperation Projects"]

[Text] The 10-day-long Heilongjiang negotiations on economic and technological cooperation have just concluded.

During the talks more than 900 businessmen from 24 countries and regions looked at grain and oil foodstuffs, local livestock, textiles, crafts, mechanical equipment, and more than 900 varieties of goods at 18 exhibitions. Concerned local departments reached an agreement with the visiting businessmen on a total volume of exports of \$50 million.

The export market has expanded from the Hong Kong and Macao region, Japan, and various southeast Asian countries to Europe, North America, and more than 100 countries in other areas.

During the negotiations Heilongjiang signed 30 project agreements for economic and technological cooperation with the businessmen. The total amount of investments reached 385 million RMB, which includes \$63 million in absorbed foreign capital.

An official in the economic sector in Heilongjiang said that these negotiations on economic and technological cooperation show that the investment structure of technological cooperation projects has changed. It used to be that service-oriented projects had the dominant position. Now, emphasis is on those which exploit natural resources, earn exchange, and use advanced technology. Of the 30 projects signed at the negotiations, aside from one project which was service-oriented, the rest are projects which exploit natural resources, involve exports which bring in exchange, and other productive projects.

The ceramics plant in Nehe County signed up with a Hong Kong corporation to build a plant for manufacture of glazed wall and floor tile using compensation trade. They introduced advanced technical equipment for carrying out further refining and switched from selling yellow clay as in the past to manufacturing glazed floor and wall tiles for export.

In recent years the entire province has made use of \$850 million in foreign capital to introduce advanced technical equipment and set up nearly 200 projects in the "three kinds of partially or wholly foreign-owned enterprises" (Sino-foreign joint ventures, Sino-foreign contractual joint ventures, and wholly foreign-owned enterprises) which have begun to exercise their function and manufacture marketable goods for export on the international market.

Heilongjiang has a substantial economic and technological base. Not only are there petroleum, coal mines, timber industry, nonferrous metal mines, and more than 300 large key enterprises in fields such as mechanical and electrical products, metallurgy, electronics, light industry, and textiles, etc. Heilongjiang also has vast cultivated areas and is rich in soybeans, corn, flax, beets, and other crops. These both provide an ample supply of goods for export and lay a material and technological foundation for absorbing foreign capital.

9864/12859

## NEW DEVELOPMENTS IN SINO-SOVIET BORDER TRADE

40060877a Shanghai SHIJIE JINGJI DAOBAO in Chinese 3 Aug 87 p 1

[Article: "New Channels, New Fields of Chinese-Soviet Border Trade: 5-Year 1.8-Fold Increase in Border Trade Between Soviet Far East and China's Heilongjiang Province; Consultations Now Underway to Launch Economic, Technical Cooperation; Both Sides Have Exchanged Views on Setting Up Business, Catering Industry Joint Ventures"]

[Text] This reporter has learned from the Heilongjiang Province export commodities meeting and the economic and technical cooperation talks held recently in Harbin that border trade this year between Heilongjiang Province and the Soviet far eastern region may reach the highest level yet since the two countries formally resumed border trade in 1983. Import-export trade for the two sides will total more than 50 million Swiss francs by the end of the year, and it is projected to be even higher next year.

Border trade between Heilongjiang and the Soviet far eastern region has continually expanded over the past 5 years, with significant increases in total trade each year. Import-export trade between the two sides totaled 17.7 million Swiss francs in 1983. By the end of June this year, on the other hand, trade contracts had already been signed amounting to 40.28 million Swiss francs; a total surpassing 50 million Swiss francs by the end of the year would be 2.8 times the 1983 figure.

Liu Wenrong [0491 2429 2837], general manager of the Heilongjiang Foreign Trade General Corp., disclosed that the plan is to expand border trade between Heilongjiang and the Soviet far eastern region into new fields of economic and technical cooperation. The border cities of the two sides favor this. For example, there could be cooperation in vegetable farming by utilizing Heilongjiang's fertile soil and abundant manpower, and Soviet funds and equipment. Consideration could also be given to setting up business and catering industry joint ventures. Both sides have already exchanged views on specific cooperative projects, and are preparing to implement them next year. The border cities of the two countries are looking further into opening up new channels of trade.



According to an analysis of all these developments by competent officials, the general trend is favorable in Chinese-Soviet border trade, and economic and technical cooperation. If there is further opening between the two countries, and especially if obstacles inherent in their foreign trade management systems are eliminated, and they actively work together to solve specific problems related to border trade, and economic and technical cooperation, such trade and cooperation between the two will develop faster and to a greater extent.

12513/9599

## HE KANG ON AGRICULTURAL GROWTH

40060867a Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMY]  
in Chinese No 6, 23 Jun 87 pp 3-5

[Article by He Kang [0149 1660], minister of the Ministry of Agriculture, Animal Husbandry, and Fishery: "Improving Studies of Agricultural Growth Strategy Will Make General Decisionmaking More Scientific; a Speech Given at a General Meeting of the Ministry of Agriculture, Animal Husbandry, and Fishery to Establish the Agricultural Growth Strategy Studies Center;" publisher's note]

[Text] In order to adapt to rural reform and commodity economy growth needs, the Ministry of Agriculture, Animal Husbandry, and Fishery has decided to establish the Agricultural Growth Strategy Studies Center. A general meeting was held on 8 May 1987 to establish the "Center." The Studies Center is a general agricultural decisionmaking studies and advisory body under the leadership of the Ministry of Agriculture, Animal Husbandry, and Fishery. Based on actual present conditions, it will emphasize medium- and long-range growth strategy studies, stress pragmatism and counteraction, use advanced techniques, improve lateral and vertical links, and combine monographic and better overall studies. Relying mainly on the research capabilities of the Ministry of Agriculture, Animal Husbandry, and Fishery and the Chinese Academy of Agricultural Science, the "Center" has enlisted the participation of specialized professors and scholars from relevant ministries and commissions, scientific research institutions, and colleges and universities to form an extensive scientific research network. The "Center" has engaged an initial group of 54 highly qualified research fellows, set forth 16 research projects in four fields for the 7th 5-Year Plan, and planned eight major study tasks for 1987. The Agricultural Growth Strategy Studies Center is a new entity that has arisen in the course of reform. It will provide an excellent way to closely coordinate agricultural research, education, and production, and will certainly play a major role in making agricultural growth decisionmaking more democratic and scientific.

It has become essential for the Ministry of Agriculture, Animal Husbandry, and Fishery to establish the "Agricultural Growth Strategy Studies Center." It is an objective need for rural economic growth, and

also the result of rural economic reforms having been developed in depth. An outstanding feature of contemporary society is that science is becoming more socialized, society is being increasingly affected by science, and all the sectors of the whole society, economy, and technology, such as industry, agriculture, and commerce, have entered a new period of great change, growth, and constant pioneering. China's vast rural areas are beginning to undergo a transition from a self-sufficient or semi-self-sufficient natural economy to a commodity economy and from traditional to contemporary agriculture, and reform of our rural and urban economies is being intensified. Under these conditions of economic transition and the new system replacing the old, the factors that affect agricultural growth have become more numerous and intricate. The agricultural sphere has become broader in developing a planned socialist commodity economy in particular. Under these conditions, it is quite unscientific to rely on experience and inference alone to formulate general state agricultural principles and make policy decisions. In our large country that has a population of 1 billion, uneven social and economic development from place to place, and an immense variety of natural conditions in particular, general agricultural decisionmaking is even more difficult. Thus, there is a pressing need for scientists in all areas of society and people of all circles to actively participate in studying agricultural growth strategy in order to provide leading bodies at all levels with a basis and background for agricultural decisionmaking. The goal of establishing the "Center" is to pool the "intelligence and wisdom" of experts and professors in relevant social areas to suggest ways and means to provide advisory services to and make agricultural decisionmaking more democratic and scientific.

## I

Many new conditions and issues have now arisen in China's rural economic growth, and there is a pressing need to intensify studies that combine theory and practice in order to provide a scientific basis for the party and government to formulate agricultural growth strategy and make major policy decisions. Many contradictions and issues are unavoidable in the initial stage of socialism and when the new system is replacing the old. I propose to set forth for study five much-debated contradictions or relationship issues in five areas and three challenges.

A. The Contradiction Between a Planned Commodity Economy and Management Autonomy for Farm Families: The plans that are formulated by the state from an overall perspective require that a balance be maintained between social production and demand, and that agricultural product plans be fulfilled, whereas farm families that have management autonomy are affected by market prices. How to integrate a family economy consisting of more than 100 million farm families into an organic whole with the planned development of a commodity economy for the whole society, i.e., how to adapt decentralized family production and management activities

to the growth of a planned commodity economy, is the first contradiction.

B. The Contradiction Between Advanced S&T and Management and Administration, and Management on a Family Scale: Agricultural modernization requires production to be specialized and mechanized, and intensive farming to be carried out. The present small scale of farm family contracting is unfavorable to mechanizing cultivation and popularizing and applying advanced S&T. How to gradually broaden the scale of family management in order to better use advanced production techniques and means of production, raise land and labor productivity, and achieve better results, is the second contradiction.

C. The Contradiction Between the Limited Amount of Arable Land and the Need To Raise Output: The amount of China's arable land and the potential to expand it are both limited. The key to the future growth of agricultural production will be to raise yield per unit area, develop agriculture, and transform low-yielding land. This will require increased input, but China's present financial and material resources are limited. How to solve this contradiction is a prominent issue.

D. The Contradiction Between Some Areas Getting Rich First and Uneven Regional Growth: Urban and rural disparities are now gradually shrinking, while regional ones are growing. How to solve this contradiction is also an issue that we must study intensively.

E. The Contradiction Between Developing a Rural Commodity Economy, the Present Agricultural Leadership: Rural economic growth has long broken away from a simple agricultural framework and formed a structure of overall growth of agriculture, industry, commerce, transportation, construction, and service. However, the present agricultural leadership still consists of agricultural production management alone, and is quite unsuited to developing rural conditions.

The three challenges are as follows:

A. The Challenge of Grain: This is a major difficulty of our present agricultural production. Everyone is now saying that how to arouse the enthusiasm of farmers to develop commodity grain production is mainly a price issue. Grain prices are the basis for the prices of many things, such as food, livestock feed, medicine, and labor. Changing them necessitates changes in the prices of other goods, and their stability affects the stability of all prices. On the other hand, it is necessary to increase input and raise the prices of the means of production in order to raise output. This requires state financial subsidies and involves state financial resources. Thus, we are faced with the serious challenge of the grain issue.

B. The Challenge That Is Facing Township Enterprises: Township enterprises have heavy economic burdens, and the issue of falling

profits has arisen. Relatively backward technology and equipment and a lack of competitiveness have affected their ability to continue to grow. On the other hand, preferential state policies for township enterprises are decreasing, and the competitiveness of urban industry has been greatly enhanced through reform, thus creating a new challenge for township enterprises.

C. The Challenge That Is Facing China to Earn More Foreign Exchange Through Exporting to International Markets: China's agricultural, processed, and township enterprise products have all achieved great successes in the area of earning foreign exchange through exporting in 1987. But our competitiveness on increasingly competitive international markets is still poor, and there are great disparities in our export goods in such areas as quantity, quality, variety, and packaging.

In order to solve these five contradictions, appropriately handle the relationships in these five areas, answer these three challenges, and improve China's agricultural vitality and capacity, it is hoped that the experts will be able to conscientiously study, investigate, and put forth reasonable and reliable views from the high plane of agricultural growth strategy.

## II

In order to enable the Studies Center to be well-run and worthy of its name, it will be necessary to pay attention to the following issues:

A. It Will Be Necessary to Pay Attention to Coordinating Natural and Social Science Studies: Agricultural production is a sector of material production that interweaves natural and economic reproduction. Agricultural growth strategy studies refers to studies of overall, key, and long-range general decisionmaking for certain periods or stages of agricultural growth. It includes strategic goals, priorities, measures, and countermeasures. This type of research is very overlapping and comprehensive, and requires that issues be viewed from the high plane of strategy, and from a general and long-range perspective. It involves many sectors, sciences, and specialties, and not natural science alone, but also social science. Since our planned commodity economy was put into effect in particular, China's agricultural economy has become both more intensive and extensive. From a temporal perspective, it includes operations performed before, during, and after production. From a lateral perspective, it includes the three levels of farming, forestry, animal husbandry, sideline production, and fishery; secondary industries, and tertiary industries. From a product orientation perspective, both domestic and international markets must be considered. From a study method perspective, both special and overall, and qualitative and quantitative studies must be coordinated. These all show that studying the issue of agricultural growth strategy requires coordinated study by many sectors, disciplines, and specialties, and



coordinated natural and social science studies. Only in this way can one-sided decisionmaking be avoided.

For instance, as to present views on the issue of rural population flow, social workers think that the population in large cities has reached a saturation point, medium-sized cities will only be able to accommodate their own natural population increases, and population should flow toward small towns. They advocate that farmers "leave the land but not the countryside." Population geographers think that the present population, urban, and industrial distribution is irrational, and that rational plans should be made for farmers to find jobs in cities. They advocate that farmers "leave the land and the countryside" and flow through many channels and levels, and in many directions.

Macroeconomists think that population flow from rural areas to cities is an inevitable trend, its motivation is the existence of the difference between town and country, and farmers moving to cities is a movement of the work force and production funds in a more harmonious and coordinated direction that can realize better economic results. This shows that the understanding of an issue is different from various specialized viewpoints. Thus, it will be necessary to stress multidisciplinary overall studies of the issue of agricultural growth strategy.

B. It Will Be Necessary to Be Good at Organizing the Cooperation of Social Forces: Although the "Studies Center" has regular key members, some of whom have long been engaged in studies of agricultural growth strategy, they are, after all, limited. Thus, it will be necessary to be good at organizing social study forces. In addition to organizing S&T contingents that are affiliated to relevant ministerial units, it will also be necessary to use various ways to organize study forces from outside of the Ministry of Agriculture, Animal Husbandry, and Fishery, such as research contingents from colleges, to engage in such things as cooperative and commissioned studies and enable the "Studies Center" to play a larger role.

C. It Will Be Necessary to Pay Attention to the Practicality of Study Tasks: Study tasks should be determined by choice rather than by quantity. They should stress prominent issues and be highly practical. In other words, they should be determined by whether they can play a role in decisionmaking. The key to whether a study task can play such a role lies in whether it has been chosen correctly, and in the quality of the researchers. I think that there are two issues here that merit attention:

1. Correct tasks should be chosen. When choosing tasks, not only must agricultural growth conditions and trends in China and abroad be understood but, moreover, the Central Committee's guiding ideology, principles, and policies on developing agriculture should also be understood. In particular, the decisionmaking needs for each stage, as well as the principles and policies of other sectors that are related to

agriculture must also be taken into account. Only in this way can the chosen tasks hit the mark.

2. Forces must be concentrated and of a specific quality. In the past, the research results of some tasks were too general. The major cause of this was that job requirements were not suited to the quantity and quality of researchers, and high-level overall analysis and creativity were lacking.

D. It Will Be Necessary to Stress the Distinct Characteristics of the "Studies Center": It will be necessary to consider the distinct characteristics of the "Studies Center" from the aspects of the nature and advantages of its studies.

1. Study emphasis should be placed on current issues that combine medium- and long-range strategy. Based on political and economic conditions in China and abroad, the general task of developing the national economy, and national conditions, studies should provide a basis for making overall and long-range agricultural policy decisions. These studies should have a definite leading nature and precede decisionmaking.

2. Advanced study methods and measures should be emphasized. Judged by the composition of scientists and technicians in certain overseas decisionmaking studies institutions, the proportion of systems engineers, mathematicians, and computer scientists is constantly increasing, natural and social science researchers are constantly merging, natural scientists have been required to raise their level of social science knowledge, social scientists have had to increase their knowledge of natural science, and individual scientists often understand both natural and social science. Since our Studies Center has natural, social, and computer scientists, this advantage should be developed.

3. Domestic and foreign studies should be coordinated. Since China is carrying out a planned commodity economy, agricultural production must be developed according to both social and market needs. Two markets must be considered here. In studying agricultural growth strategy, not only must the domestic market be considered, but the issue of the international market must also be taken into account. If predictions of international agricultural growth conditions are not made, it will be impossible to provide a directed basis for China to make agricultural growth policy decisions. This is a weak link in our present studies. Only by knowing ourselves and others can we be ever-victorious and formulate an agricultural growth strategy that is in line with China's national conditions.

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## PROSPECTS FOR ANIMAL PRODUCTION EXAMINED

40060868 NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMY] in Chinese  
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[Article by the Animal Husbandry Topical Group in the Economic Policy Research Center at the Ministry of Agriculture, Animal Husbandry and Fishery: "Some Views Regarding the Prospects for Growth in Animal Husbandry in China"]

[Text] Comrade Deng Xiaoping said recently that our past mistakes were due to "too high and too fast" [growth rates] that were detached from China's realities. This thesis is correct, and it requires us to reconsider several issues related to the developmental prospects for animal husbandry development in China.

I. Animal Husbandry Development in China Does Not Require Sustained High Growth Goals and Rapid Development

The rate of growth in value of output in animal husbandry and the prospects for sustained rapid future growth in animal husbandry production departments have apparent positive effects on readjustments of agricultural structures in China and improvement of national consumption structures. Pathbreaking progress has been made in crop-based agriculture and a background of considerable growth in grain output has led many comrades to persist in their emphasis on "major efforts to develop animal husbandry." Moreover, they have adopted this as their guiding ideology in developing animal husbandry and have suggested ideal growth indices for animal husbandry. This sort of desire is good. Another aspect of this issue, however, is that animal husbandry in China was able to sustain a rather high growth rate during the Sixth 5-Year Plan and grew at 10.6 percent a year, reaching the highest levels in history in certain items. These achievements were made on the basis of many social and economic factors, especially the combined push of policy and price-change factors, and they also had an obvious restorational quality. It is apparent that the social and economic factors which promoted development in animal husbandry have changed during the Seventh 5-Year Plan and will continue to change until the end of this century. Many factors that played definite positive roles in the past will weaken, be transformed, be blocked, or disappear. Given the enormous structural changes that are to occur in animal husbandry and the fact that economic growth has yet to make the transition from traditional quantitative growth forms into structural growth, it has become impossible for animal

husbandry in China to sustain a high level of growth. This requires revision of the rate and scale of medium- and long-term animal husbandry development in China.

The "Plan for the Development of Animal Husbandry in the Seventh 5-Year Plan and the Year 2000" stipulates a 6.2-percent annual growth rate for value of output in animal husbandry from 1985 to 1990. The yearly rate of growth in value of output in animal husbandry from 1980 to 2000 is to be 6.3 percent. Total meat output in 1990 is to reach 22.75 million tons with a per capita figure of 33.8 KG of meat, poultry and eggs. Total output in 2000 will be 31.25 million tons and per capita amounts of meat, poultry and eggs will reach 50 KG.

A high growth rate is not a bad thing but we must examine the price that China must pay. Given the situation of long-term state capital shortages and the fact that animal husbandry has seen a period of "unprecedented outputs" which have generated only minor growth in capital and material inputs and which make it impossible to maintain a high growth rate, the question is whether or not it would be the intelligent thing to do to use enormous economic transfer costs in exchange for magnificent goals for development of animal husbandry if we wish to improve nutritional levels in China. To rephrase it, given that per capita incomes can only reach the "relatively well-off" (a per capita income of \$800) level, is there a need to reach the 50-KG level for per capita consumption of meat, poultry and eggs. We feel that:

First, present nutritional levels in China cannot be considered high when compared with the developed nations, but this type of diet has a nutritional level that conforms basically to WHO dietary health goals and nutritional standards issued by Chinese scientific research organs (revised by the Chinese Physiology Society's Third Nutrition Science Conference).

Second, China ranks out of the top 100 nations in terms of national income but our per capita food consumption levels have risen to slightly above the middle point world-wide. When China is compared with moderately developed nations and especially with the developed nations, the most basic difference is found not in food consumption levels but instead in levels of economic development. In these circumstances, it is unnecessary for China to require that food consumption levels reach those of the more developed nations during a stage of rather low levels of economic development (including the \$800 stage).

Third, is that the general experience in foreign countries has been that, assuming no change in other conditions, each increase of 10 percent in meat in average food structures in areas where feed conversion rates are highly efficient requires the loss of the equivalent of 35 to 40 percent of arable land. For this reason, given the preconditions of extremely limited cultivated land, capital, and other resources, we must reevaluate our successful past experiences of relying on consumption of more grain and fewer animal products in consideration of our much higher per capita food consumption levels compared to other nations with similar income levels. We must make the necessary choices concerning development preferences. Given the range of differences compared with other developed nations, we inevitably will pay increasingly



higher opportunity costs to develop animal husbandry. Some of them have been wasted on efforts to raise the proportion of animal products in food structures and using them as a basis for unsuitable horizontal comparisons with other nations. We must be realistic and strive to reduce any unnecessary idealistic colorations when predicting the developmental prospects for animal husbandry.

Fourth, if we become detached from China's realities and overoptimistically maintain animal product consumption at a level that would be hard to sustain, and if we were to pursue high indices and high rates, growth in the value of livestock output would not be founded on a model of modernized structural growth but instead would depend on traditional quantitative growth. The inevitable result would be intensification of the structural contradictions within animal husbandry itself. The grass-animal and grain-animal contradictions are examples. Deterioration of these contradictions inevitably would become a greater obstacle to growth in animal husbandry itself. This in turn would make it essential that consumption appetites be reduced if they had been held at high levels. During the process of reforms in economic systems, no other problem is so capable of causing the people to feel hopeless and at risk in the reforms.

## II. It Will Be Very Difficult or Even Impossible To Sustain a High Growth Rate in Animal Husbandry in China

Sustained rapid development of animal husbandry in China is faced with hard-to-overcome barriers: scarce resources and inadequate effective demand. The two great systems in livestock production in China--animal husbandry in agricultural regions and animal husbandry in plains pastoral regions--can serve as a basis for dividing the resources needed for development of animal husbandry into the two main categories of grain and pasture.

1. Grain. Grain was the primary resource for animal husbandry development in agricultural regions and the Sixth 5-Year Plan was the fastest period of growth in grain output since the founding of the nation. The rapid development of animal husbandry during this period occurred under conditions of rapid increases in total output of grain and per capita grain consumption. From 1978 to 1984, total grain output rose from 304.77 billion kilograms to 407.31 billion KG.

The substantial increase in grain output caused substantial changes in the feed supply situation for household animal raising in agricultural regions and in the nutritional situation of livestock and poultry. Before the Sixth 5-Year Plan, traditional household animal raising in China always had depended a low grain consumption method for raising poultry that used the least possible amount of grain and more sideline products and slop as low-value feeds. In addition, the persistent problems in reducing the grain shortage situation since the founding of the nation forced the state to adopt unified purchase and sales policies and implement strict purchasing and feed supply systems. This meant that the peasants did not even obtain feed that was far inferior to livestock and poultry nutritional levels until they sold their animal products. This further depressed production levels in household animal raising by the peasants. This situation saw substantial improvement during the Sixth 5-Year



Plan. The improved grain situation assured rising production levels in peasant household animal raising. Next, the rapid restoration of household animal raising in China led directly to the development of animal husbandry throughout China. Between 1983 and 1985, the slaughter rate for hogs in China rose from 63.83 percent to 77.83 percent, up 14 percent over 5 years, which was a 2.8-percent yearly growth rate. The number of hogs slaughtered increased from 194.95 million to 238.75 million, an increase of 37.7 million head. During the Sixth 5-Year Plan, however, inventories of hogs only grew from 305.43 million to 306.79 million, up a mere 7.1 million head. It is obvious that hog production during the Sixth 5-Year Plan depended not on higher total head counts but was achieved instead through a higher slaughter rate. Moreover, the higher slaughter rate definitely did not involve improvements in the internal quality of animal husbandry (as everyone knows, the fact is that grassroots veterinary extension and service organizations have found it hard to adapt to reforms in rural economic systems and they are in a state of paralysis, dispersion, and chaos). Instead, it involved more grain to provide the basic material guarantees to support a higher slaughter rate in peasant household animal raising. The reason was a lack of scientific and technical progress over nearly 20 years and the absence of modernized material equipment. The slaughter rate also reached the 75-percent level in 1965 as the grain situation improved.

After 1985, however, noticeable changes occurred in the grain situation, with total grain output fluctuating below the 1984 figure of 400 million tons. The conditions for relying on large increases in feed grains to support rapid development in animal husbandry no longer exist. This is the most serious challenge we face in future animal husbandry development.

First, although continued growth in total grain production may occur, population growth will mean no major changes in per capita grain consumption levels.

Second, there can be no substantial increase in feed grains and major differences between demand and realistic supplies.

Third, per capita meat, poultry, and egg consumption in Beijing, Tianjin, Shanghai and other large cities in China now exceeds 50 KG and they have reached the "relatively well-off" life in food consumption ahead of schedule. At the same time, however, per capita grain consumption also reached 500 to 600 KG in these cities. This means that the per capita consumption indices proposed in animal husbandry development plans cannot be achieved until per capita grain consumption levels reach the 500-KG jin level or thereabouts.

Fourth, some comrades feel that growth in animal feeds may reduce direct consumption of grain and place their hopes on substituting animal products for direct grain consumption. In reality, however, consumption of animal products must reach a certain level before reduced direct grain consumption is possible. The Shanghai Grain Supply surveyed the grain consumption situation in seven plants, two organizations, three colleges, and among some city residents. The results showed that the amount of animal-based foods per capita must reach 60 KG before direct consumption of grain begins to fall.

2. Pasture. Given the strong restrictions that grain places on the development of animal husbandry in agricultural regions, will it be possible for the developmental focus in animal husbandry to be shifted to animal husbandry in pastoral regions? The current situation is that although China may be one of the four largest nations in the world in terms of grassland area with 4.3 billion mu of grasslands (the United States has only 3.8 billion mu and the Soviet Union has 4.44 billion mu), grasslands animal husbandry accounts for a far from symmetrical proportion in animal husbandry as a whole in China in comparison with grasslands resources since the meat it produces accounts for only 8 percent of the total amount of meat produced in livestock production in China. In addition, because the basic form of grasslands animal production in China relies on naturally growing grass that livestock use for growth, grasslands production in China stands far from being able to abandon backward production patterns that depend on nature to raise animals. At the same time, there are restrictions by various socioeconomic factors that make it impossible to build a modernized grasslands production base within the next few years or even over the next decade and more. For this reason, although China has enormous latent resource advantages in grasslands resources that surely will take an appropriate and significant place in animal husbandry in China, a look at usable pasture resources today indicates that the burden of this 8 percent of meat output already seems too heavy.

First, China's grasslands have poor natural conditions. Pastures are inferior in quality and have weak production capacities. Although China has 4.3 billion mu grasslands, only 3.3 billion mu are usable and 80 percent is arid grassland, desert, and semidesert. Gross production in pastoral regions undergoes a period of extreme instability over a 2- to 3-year cycle. The small proportion of grassland in northern China that can be used for raising improved pasture grasses means that grass output is low and it makes substantial growth in grasslands livestock production impossible. In Australia, where grasslands conditions are similar to China (with a higher proportion of natural and arid grasslands), 159 mu of pasture carried one cow unit. China reached the level of 159 mu per cow unit back in 1980, so we have surpassed the animal carrying capacity of Australia.

Second, there is serious desertification, salinization, and reversion in northern grasslands. 1) According to surveys, the area of grassland reversion in China in 1981 reached 720 million mu, equal to 23 percent of the usable area. The average unit area grass output of the grasslands was 30 to 50 percent less than during the 1950's and per mu grass output averaged only 35 KG. 2) Grasslands are undergoing desertification. China has 180 million mu of grasslands that have turned into desert, equal to 9.4 percent of the total desert area. 3) There are serious rodent and insect problems. Some 1.07 billion mu in China have rodent and insect problems, equal to 32.43 percent of the usable grasslands area.

Third, livestock burdens are excessive. China's 10 pastoral provinces and regions had large and small livestock inventories of 29.16 million head in 1949 and this figure had risen to 86.66 million head by 1978. Unified calculations to convert to sheep units indicated that each sheep unit in 1949 had an average

of about 48 mu of usable grassland, but the figure had fallen to 19.6 mu by 1978. The large numbers of animals and the small amount of grass mean that supplies of forage grasses are inadequate and livestock are in a state of starvation and semistarvation. This not only leads to the death of large numbers of animals (Nei Monggol loses about 2 million head of livestock in the winter and spring each year, equal to 3 to 5 percent of the total number of animals), but also lowers the quality of livestock. In Nei Monggol and the northwest, the carcass weight of sheep has fallen 2.5 to 5 KG in the past 7 years and cattle have dropped 25 to 50 KG. Under such conditions, it seems to be impossible to hope that grasslands animal husbandry can supply larger amounts of animal products within a short period of time without causing further grassland deterioration.

Inadequate resources are the greatest factor restricting the development of animal husbandry in China. China has only 15 mu of land per capita, which is less than one-third the world per capita average area of land of 49.5 mu. There is less than 1.6 mu of cultivated land per person, which is only slightly more than one-fourth the world per capita average of 5.5 mu of cultivated land. China has 3.3 mu of usable grassland per capita, which is only one-third the world per capita average of 11.4 mu of pasture. The situation of inadequate animal husbandry resources in China becomes much more apparent when compared with the nations of the world where animal husbandry is developed. Given China's national conditions, suitable adjustments in growth goals and reductions in development rates are needed before we can maintain sustained development of animal husbandry in overall equilibrium with China's resources, which means being adapted overall to the degree of resource exploitation in China.

3. Demand restrictions. Large increases in animal products are restricted by social demand. Generally speaking, the quantity of demand has no economic significance. What deserves study is effective demand, which is based on the spending capacity of consumers (purchasers). Many comrades have made predictions of social purchasing power in the year 2000 and have concluded that consumer buying power for animal products will grow substantially. From the demand perspective, growth indices for animal products in the plan might be achieved. In reality, however, such estimates forget four principles:

First, the proportion of accumulation funds is too low. The Ministry of Commerce Planning Bureau has predicted that national income will reach 1.24 trillion yuan in the year 2000. If we deduct 25 percent or 310 billion yuan in accumulation funds, consumption funds will amount to 930 billion yuan. In reality, however, the 25-percent figure for accumulation funds is an ideal figure and will never be attained. Accumulation funds were 33 percent during the Fourth 5-Year Plan, 33.2 percent in the Fifth 5-Year Plan, and 30.8 percent in the Sixth 5-Year Plan. If we add up historical accounts (with an accumulation fund of 31 percent), accumulation funds at the end of the century will be 384.4 billion yuan and consumption funds will be only 855.6 billion yuan, not 930 billion yuan. This is a difference of 74.4 billion yuan in this item alone.

Second, inflation (price variation) factors were not taken fully into account. In 1985, average retail price indices in China rose 8.8 percent and price indices rose 6 percent during 1986. If we compare the 7-percent growth in rural per capita incomes during 1986 and the 6-percent rise forecast for 1987 with these indices of price increases, there was zero growth in peasant real incomes in 1986 and 1987, which means that effective demand in rural areas dropped instead of growing. Such reductions will have profound effects on future effective demand.

Third, changing price factors for animal products were not considered. The Bureau of Agriculture in the Ministry of Agriculture, Animal Husbandry, and Fishery has estimated that rural per capita net incomes will reach 600 yuan in 1990, with household expenditures at 462 yuan or 77.1 percent. Expenditures on food will account for 272.6 yuan of this amount, up 48.69 percent over 1985. Expenditures on animal-based foods will be 115.7 yuan, but the supply of animal-based food products in rural areas in 1990 will account for only 63 yuan, so only 54 percent of purchasing power actually will be achieved, leaving a deficit of 53.7 yuan. Net per capita incomes in urban areas will be 1,000 yuan, including 215 yuan in outlays for animal-based foods. The amount that can be supplied is 133 yuan, so only 62 percent of actual purchasing power actually will be achieved, leaving a deficit of 82 yuan. It is obvious that these calculations underestimate total selling prices for the amount of animal products that can be supplied. The basis: 1) Growth indices for nonstaple foods are the fastest among all commodities. If 1984 is indexed at 100, the average price of nonstaple foods increased 19.3 percent in 1985, which was more than double the social retail average price index; 2) Production costs for animal products have grown more quickly and there has been an obvious decline in the economic results of animal raising; the production situation may fall back barring readjustments in the prices of animal products. This theoretical examination indicates that there will be a deficit of about 40 percent between the amount of demand for animal products and the amount that can be supplied, so there is no scientific basis or rationality.

Fourth, no consideration has been given to changes in national income and consumption patterns. During the Sixth 5-Year Plan, the amount of national income used for consumption rose from 279.9 billion yuan to 482 billion yuan, an increase of 202.1 billion yuan. Of this amount, 116 billion yuan will be contributed by peasants, which is equal to 74.2 percent of total growth in consumption funds. If, however, the peasants are unable to sustain a 15-percent rate of income growth during the Sixth 5-Year Plan, a large increase in total consumption will be impossible. Signs of slowed growth in peasant incomes appeared during 1986, indicating the obvious changes occurring in the consumption situation in China.

In summary, a conclusion can be drawn from the above. Although we have made no precise estimates of animal product consumption levels in 1990 and 2000, analysis of the factors that affect effective demand for animal products permits one to confirm that appropriate reductions in development rates and growth indices for animal husbandry proposed in the plan would not lead to overall shortages of animal products. Instead, nonexcessive tension in the



animal husbandry industry would rein in too-high growth rates and could benefit structural readjustments and assure sustained and stable growth in animal husbandry.

### III. The Development of Animal Husbandry in China Is Faced With a Series of Structural Contradictions That Are Fundamental Obstructions to Long-Term High Growth Rates

China maintained a very high rate of animal husbandry development during the Sixth 5-Year Plan and obvious changes have occurred in animal husbandry itself: it has shifted from self-sufficient production to commodity production; it has shifted from traditional animal husbandry to modernized intensive animal husbandry; and it has shifted from a subsidiary status of a focus on sideline production to an independent industrial sector and gradually expanded the proportion of specialized production. These changes are of historical significance in the developmental process of animal husbandry and show that animal husbandry in China is entering a new stage of development. We must, however, be clear-headed in noting that the achievement of such changes on the basis of real conditions in China require a rather long-term developmental process and that although growth in animal husbandry in China has added a great deal of modern coloration to animal husbandry, it still will involve mainly the achievement of a rather fast pace of development based on traditional animal husbandry. It is exactly because of this sort of high rate and rapid developmental process that a series of problems will appear and that the contradictions within the animal husbandry industry itself and the series of structural contradictions that will appear during the development process will lead to additional developments in animal husbandry so that many obstacles appear to the completion of this sort of transformation and sustained development at an even higher level. Because all the reforms in economic systems in rural areas have not been completed and the state also is unable to set aside larger amounts of capital to support the development of animal husbandry, these contradictions will become even more acute and complex.

First, there is a contradiction between the development of animal husbandry and those natural resources that assure the development of animal husbandry. This is mainly a contradiction between the need for gradual expansion of animal husbandry and growing shortages of natural resources under conditions of no basic changes in natural resource utilization patterns and number of developmental levels in animal husbandry.

Second, the contradictions between animal husbandry and other industries include: 1) The contradiction between animal husbandry and agriculture and other nonagricultural industries in rural areas that is manifested in the effects of product price ratios among industries on the development of animal husbandry and the ever-growing opportunity costs of developing animal husbandry. 2) The contradiction between animal husbandry and the livestock machinery and feed industries. It is hard for development of the livestock machinery industry to meet the basic needs of animal husbandry construction. Depending on a machinery industry that has not transformed its backward situation to establish a modern livestock production foundation is hard to imagine. Examples include the fencing urgently needed for grasslands



construction. Total national demand in 1985 was 150 million meters but total national production capacity for fencing is only 30 million meters, so production capacity is only 20 percent of demand. Moreover, there are problems with backward technologies, poor quality, high prices, and short useful lives. The price of barbed wire was 800 to 900 yuan per ton in 1984, but jumped to 1,600 yuan in 1986. Fencing, which requires a large amount of capital to buy, must be repaired or replaced every 3 or 4 years, while the fencing made in New Zealand has a single-use life of 30 years and more. The enormous costs that China pays for grassland construction cannot be evaluated using economic results.

The contradiction between the development of animal husbandry in China and the feed industry appears in the following situations: 1) The contradiction between demand for feed and supplies. China produced 12 million tons of compound and mixed feeds in 1983, but total demand for feeds in the same year was 130.85 million tons, so supplies met only 10.9 percent of demand; 2) the contradiction between demand for feed and the quality of feed supplies. The quality of feed in China is so low as to be shocking. Hunan Province produced 544,000 tons of compound and mixed feeds in 1984 but only 20 percent met standards.

Third, there is a contradiction between development of animal husbandry and reforms in economic systems. This contradiction is manifested as chaos in price signals in a dual-track system and various types of conflicts created by an inability to form rational economic interest structures. This is the main reason for the major rises and falls in the development of animal husbandry over the past several years and for the fact that it has occupied the unfavorable position of being "attacked from the front and rear."

1. Prices undergo frequency fluctuations. In addition, the state lacks effective foresight in control of prices, so prices rise and fall on the basis of information on market supply and demand conditions, which has made it very difficult to achieve stable development of animal husbandry. Moreover, the animal products for which prices have undergone the greatest fluctuations are precisely those with the highest percentage of marketed products.

2. The coexistence of several types of price systems not only has blocked any basic change in the situation in which the prices for various products are detached from their values, but moreover, a loss of balance in price ratios among various types of commodities means that price differentials for quality are not sufficiently rational. This is manifested mainly in three areas: 1) a loss of balance among comparative prices for animal products; 2) irrational price ratios between animal products and agricultural products; 3) irrational price ratios between processed animal products and unprocessed animal products.

3. The contradictions between all types of economic interests are concentrated and intersect in the realm of circulation. The economic measures adopted by some regions and commercial departments in consideration of different economic interests not only have made price readjustments extremely complex but also have played a role to a certain extent in fanning the flames of unstable development in animal husbandry. These are found mainly in the three areas of protecting local commerce, local industry and local finances.

4. Over the past few years, rural economic reforms giving the peasants greater decisionmaking rights in production management and the penetration of market mechanisms into rural areas have given new vitality to the rural economy. There have been two side effects, however: 1) The greater selectivity of the peasants has increased the instability in animal husbandry development. The peasants are sensitive to feedback regarding price signals and most of the authority over the direction of livestock production has shifted from livestock production departments to circulation departments. During times when price fluctuations have negative effects on animal husbandry development, the fact that livestock departments have no economic levers means that they can only await a reversal of the situation and remain in a helpless position. 2) Although specialized livestock production and intensive raising have been effective in improving productivity and economic results and are representative of the direction of developments in animal husbandry, as well as the fact that these production patterns tie production and markets too closely together in addition to the extreme instability and lack of perfection in markets, the result is that specialized households which have changed from treating household animal raising as a sideline find themselves in a situation of extremely unstable production and have come to bear the brunt of the crashing waves of market changes. For this reason, the development of animal husbandry has an even greater susceptibility to the inevitable lack of coordination encountered during the process of market evolution and progress in economic reforms.

Fourth, there is a contradiction between construction of livestock animal service systems and the development of animal husbandry. The most visible weakness in China's animal husbandry construction is construction of service systems. Service systems include the three main systems of breeding improved varieties, veterinary medicine, and grasslands work, with the veterinary medicine system being the dominant of the three primary systems. Following reforms in rural economic systems, it has become difficult for work in basic-level veterinary medicine to adapt to the rapidly changing rural socioeconomic environment encountered during the reforms, leading to a whole series of prominent problems. Transformations of rural economic systems have brought basic-level stations that used to depend on the People's Communes to the brink of paralysis and collapse; outdated practices are a serious phenomenon and service levels are low; the old, weak, and inferior situation at present in basic-level veterinary staffs has a direct effect on the development of animal husbandry.

These four contradictions are the main cause for restricted development in animal husbandry and the major ups and downs in animal husbandry, and they are also the main obstructions to animal husbandry development at the present time. The question of whether animal husbandry will be able to have sustained stable growth will be answered by our efforts to overcome these structural contradictions.

#### IV. Some Conclusions

1. Obviously profound changes are underway in the primary socioeconomic conditions and environment that support rapid development of animal husbandry and the stage of rapid growth in animal husbandry is over.

2. Limited resources will be the most basic factor restricting animal husbandry development in the future. Medium- and long-term plans for the development of animal husbandry in China should take this point into account and revise the long-term indices for the speed of development and growth in animal husbandry in China.

3. The challenges offered by a whole series of structural contradictions that animal husbandry development will face in the future and whether we will be able to maintain a stable momentum of growth will be determined by our efforts in this area.

4. The guiding ideology established for the development of animal husbandry during the Sixth 5-Year Plan is inappropriate. The guiding ideology for future development of animal husbandry should derive its conclusions on the basis of an examination of the stage-like nature of animal husbandry development and a full understanding of the structural contradictions that exist within animal husbandry development.

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## FUTURE CHANGES IN THE RURAL ECONOMIC STRUCTURE

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese  
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[Article by Ma Xiaohe [7456 2556 3109], Economics Research Institute, State Planning Commission: "Study of the Pattern of Changes in the Structure of China's Rural Industry"]

[Text] The reforms to the economic system of the past several years have moved development of the rural economy toward a new historical period. With the arrival of this new stage, problems of a structural nature in industry that can hurt further development of the rural economy have come to occupy an increasingly prominent place on people's daily work agendas. Therefore, analysis of factors contributing to change in the structure of rural industry and an exploration of the patterns of change and evolution among industries holds important practical significance.

## I. Basis For the Structure's Present State

Any discussion of change has to begin with an understanding of the present situation. We believe that an accurate evaluation of the industrial structure cannot be limited solely to a general analysis of accomplished facts including percentages, drawbacks, and problems, but rather that a fairly concrete examination should be made of the various dynamic factors affecting the structure of industry in order to understand the factors that have gone into forming the present structure and the imminence of changes. Of the numerous dynamic factors, one might say that labor resources, natural resources, the material and technical foundation, and market needs etc. are the more important ones.

A. Analysis of Labor Resources: Labor is the most active key element affecting the structure of industry. The present state of agricultural labor resources in China is one of an enormous surplus of labor greatly in need of transfer into nonagricultural work. A steady rise over a long period of time in the agricultural labor productivity rate borne of an increase in population and a reduction in the amount of land, and great strides in production techniques have given rise, either absolutely or relatively, to a large amount of surplus labor. As of 1985, the agricultural labor force had grown to 303,520,000, which was 1.57-fold the 1957 figure. During the same period, a reduction of

224,760,000 mu had taken place in cultivated land, the most important object of labor. The amount of cultivated land fell from 8.7 mu to 4.8 mu per capita. Our analysis of the amount of labor used to grow 14 different major farm crops in 1982 showed that given present production conditions, each unit of labor could take care of an average 13.9 mu of planted area. From this, we deduce the actual labor force required by the country's farming industry at the present time to be 154.5 million. When the work force required for forestry, animal husbandry, sideline occupations and the fishing industry are added in, the actual labor force required for agriculture is only 202.5 million. This means that there are 100.47 million people more than are needed for agricultural production who are an excess workforce stagnating in agriculture. They are not an effective element in the growth of agricultural production, and unless they are transferred at once to nonagricultural pursuits, they can only become a heavy burden that the agricultural system cannot digest.

The analysis provided below of the correlation between the input of animate labor and material and the output of grain can further illuminate this problem. As Table 1 shows, all the values of coefficients of compound correlation that stand for the joint role in grain output of material inputs and inputs of animate labor are close to 1, thus showing a substantial degree of influence. On the other hand, among the coefficients of partial correlation that stand for the role in grain output of various inputs when there is no change in other output, the degree of correlation between increase in output and material input is much higher than the degree of correlation to input of animate labor. This shows that the role played by input of animate labor on output is much less than the role of material input. Furthermore, with changes from year to year, the role of animate labor input has a weaker and weaker influence on increase in the output of agricultural products. In other words, continued additions of labor to agriculture will be unable to bring about large-scale increase in agricultural products, not will it be able to change the combined benefits from the main existing production elements. Therefore, efforts to release "latent energy" from within the structure turn into an acceleration from within of the shift of labor from agricultural to nonagricultural pursuits.



Table 1. Table Showing Analysis of Correlation Between Inputs of Materials and Labor to Grain Output

Particulars	Coefficient of Compound Correlation	Coefficient of Partial Correlation		Regression Function Formula
		$y/x_1$	$y/x_2$	
Time sequence sampling of correlation to grain of materials and animate labor 1953-1983	0.916	0.888	0.541	$y=153.2x_1^{0.4991}x_2^{-0.2323}$
Cross section sampling of correlation to wheat of materials and animate labor 1980-1981	0.7224	0.6648	0.4739	$y=22.1x_1^{0.5818}x_2^{0.2200}$
Cross section sampling of correlation to wheat of materials and animate labor 1982-1983	0.3181	0.762	0.452	$y=22.3x_1^{0.6354}x_2^{0.2161}$

Note:  $y$  is output of either grain or wheat;  $x_1$  is material input;  $x_2$  is animate labor input.

B. Analysis of Rural Use of Resources: The structure of resources is the cornerstone of the structure of industry. In China today, overuse and underuse of natural resources exists side by side. As Table 2 shows, the utilization rate for cultivated land resources reaches 88 percent (the multiple-cropping rate on cultivated land resources being used reaching 148 percent), while the utilization rate for fishing industry resources, water resources, and forest resources is a maximum of only approximately 65 percent and a minimum of less than 7 percent. One direct consequence of the uneven utilization of resources is an enormous difference in each industry between inputs and outputs. There is a difference in earnings per 100 yuan of capital invested of from more than 10-fold to several score-fold between the farming industry and forestry, animal husbandry and the fishing industry. Furthermore, this imbalance in utilization is not limited solely to natural resources. For example, the utilization rate for major products is high while utilization of byproducts is low. Use of non-recoverable raw and processed materials is calculated carefully and strictly budgeted while recycling and multilevel increase in value of products is slighted, etc. All these things doubtlessly exert tremendous pressure on changes in the structure of the country's rural industry.

Table 2. Table Showing Structure of Natural Resources Utilization

Particulars	Units	Usable Resources	Resources Being Used	Utilization Rate (%)
Cultivated land area*	100 million mu	16.53	14.53	87.9
Marine breeding area	10,000 mu	738	369	50
Fresh water breeding area	10,000 mu	7545	4890	64.8
Amount of water resources	100 million cubic meters	27208	4658	17.1
Water energy resources	100 million kw	3.79	0.24	6.3
Area suitable for forests	100 million mu	29.0	17.3	59.7

\* China currently has 530 million mu of wasteland suitable for forests of which approximately 200 million mu may be reclaimed for use.

C. Analysis of the Structure of Demand: Market demand is the principal external force affecting the structure of industry. With the steady rise in income levels, the structure of consumption has undergone very great changes. Table 3 shows that since 1978 peasant per capita net income nationwide has nearly tripled, and this has brought about marked changes in the structure of consumption. Comparison of 1985 with 1978 shows a 10-percent drop in food consumption while there has been a 10-percent rise in consumption of clothing, housing, fuel and cultural services. In the elasticity of demand income, the elasticity in demand income for food is only 0.67, while the elasticity in demand income for other things is as much as 1.3, or twice again as much an increase for food. This means that growth in demand for food is slower than growth of income, and that growth in demand for other things is faster than income growth. It is evident that accompanying a rise in income has been an increasingly intense demand for other things, such as clothing, housing, and fuel, as well as for cultural and daily life services. This has had a very great impact on the structure of the country's rural industry, particularly the production of agricultural products, particularly for products of the farming industry among agricultural products, particularly for grain among the products of the farming industry, and particularly for primary products among grain products.

To summarize the foregoing analysis, as a result of the unremitting impact of the potential energy of the surplus rural labor force, the internal force created by differences in the extent of use of resources as well as the powerful external attraction force created by the structure of market demand has made a transformation of the structure of the country's agricultural industry extremely urgent.

## II. Pattern of Incremental Advances in the Structure and the Mechanism of Movement

Transformation of the structure of rural industry will be governed by the level of development of production and of the commodity economy; it will not be a revolution in which "a new force comes suddenly to the fore," nor will it be an "explosive" reconstitution. It will be a process of phased change that proceeds from the simple to the complex and from a low level to a high level. This process will be characterized by successive stages and sequences. Concretely speaking, the movement and the sequence of change in the scale of alignment of industry (including the alignment of production elements and the configuration of output value) in economic time and space will go through four stages and five levels.

A. The Initial Stage: During this stage, there will be an extremely clear-cut, markedly different division of labor in cities and the countryside. The rural economy will be stuck within the narrow confines of "taking agriculture as the foundation." The level of agricultural productivity will be relatively low and an overwhelming majority of production elements will be concentrated in grain production. The peasants will be concerned mostly with satisfying their own needs for food and clothing, and agriculture will ship only small amounts of primary agricultural products to cities. Rural industry will amount to next to nothing, consisting only for a few traditional handicraft industries. Though businesses and service trades will still be fairly weak at this time, they will develop before agriculture and industry. This is because: 1) some traditional businesses and service trades will have to develop first in order for agricultural production to develop and to meet the basic daily needs of rural residents; 2) main production elements, such as capital and labor can readily enter business and the service trades, so they will be able to develop fairly easily. During this stage, correlation in the alignment of the structure of rural industry will be from I (primary industries) to III (tertiary industries) to II (secondary industries).

B. The Initial Change Stage: Development of tertiary industries will gradually tie the cities and the countryside more closely together. The peasants' horizons will widen; the amount of information will expand; and the commodity economy concept will become stronger. At the same time, agricultural productivity will rise and the peasants' food and clothing problems will be substantially solved. A substantial amount of surplus labor and capital will also appear. In order to derive maximum benefits, new places for investment of this surplus labor and capital will have to be found. This will provide a turning point for development of hitherto virtually nonexistent rural industry. Large amounts of capital, labor, and technology will begin to flow into secondary industries, with the processing of agricultural sideline products taking the lead in the rapid strengthening of rural industry. This will bring about changes in the make-up of agricultural products shipped out of the countryside and a strengthening of the rural economy. During this period, correlation in the alignment of the rural industrial structure will change from I to II to III.

C. The Successive Change Stage: Agricultural productivity will grow rapidly and there will be further shifts and flow in principal production elements. The level and scope of processing of agricultural and sideline products will enlarge greatly. In addition to intermediate and small industries, joint city and country enterprises, and large and medium rural industrial enterprises with a fairly high organic structure that have been founded through the pooling of peasant capital will begin to appear, thereby greatly quickening the pace of development of tertiary industries. With the development of industry, the service area of tertiary industries will also extend from agriculture and rural daily life into secondary industries to bring about development of transportation, shipping, business, food and beverage, and service industries. The old structure dominated by agriculture will crumble further, and primary industries will fall from their position as "older brother" giving way to secondary industries. At this time, the correlation in the alignment of the industrial structure will change to become II to I to III.

D. The Development Stage: All round growth of the rural economy and very great increase in the kinds, amounts, and quality of agricultural products will bring about a rapid change in the peasants' standard of living. The level of peasant consumption demand will vastly exceed the range of the basic needs of livelihood, the impact of the need for services in the cultural, art, entertainment, and beautification fields gradually intensifying and beginning to enter the advanced stage of need that "exceeds the material." Agricultural production will already have become specialized, socialized, and commercialized, and the organic structure of rural industry will have steadily increased. All this will create richly endowed conditions for development of tertiary industries, which will rapidly attract the main sectors of all principal elements of production and will quickly develop and become strong in the vast available field. First will be the surpassing of primary industries that have always grown steadily, followed by the surpassing of the "upstart" secondary industries, tertiary industries taking first place. With this, the structure of rural industry will enter the stage of high development. At this time, the correlation in the alignment of the industrial structure will be III to II to I.

The foregoing analysis shows that the structure of industry does not evolve independently and capriciously, but rather has fairly clear-cut levels and developmental relationships, and that the previous stage is the foundation for the later stage while the later stage is the result of development of the former stage. There is a pattern to the displacement among industries or changes in their percentage of distribution. The development and growth of secondary and tertiary industries causes the structural distribution to follow a broken line path of transverse translation that alternates with oblique movement. Displacement among industries is not simple repetition and exchange, but rather contains qualitative changes, namely that the structural layers in the latter stage for both the quality of key elements and for the function of the industry are much higher than for the previous stage. It is through this process of quantitative growth and qualitative change that the structure of industry constantly abandons the lower stage and the lower level to enter a higher stage and a higher level.



### III. Evolutionary Pace of the Country's Rural Industrial Structure

From the foregoing developmental pattern, we are able to discern from the dazzling matrix of current changes the pace of evolution of the country's rural industrial structure. Simply stated (as Table 4 shows), no matter whether looked at in terms of the manpower structure or the output value structure, the structure of China's rural industry is now in the second stage of development, i.e., the initial change stage. This is the basic point of departure for change in the structure of the country's rural industry.

Table 4. Table Showing Current Status of the Rural Industrial Structure

Industry	Work Force Structure (10,000 workers)			Output Value Structure (100 Million Yuan)	
	1978	1980	1985	1980	1985
Primary Absolute Amount	27488.2	28778.7	30351.5	1964.3	2912.2
Industries Percent (%)	89.7	90.4	81.9	67.3	52.3
Secondary Absolute Amount	1963.9	2225.2	3871.1	774	2207.2
Industries Percent (%)	6.4	7.0	10.4	26.5	39.6
Tertiary Absolute Amount	1185.7	832	2842.5	180.5	454.6
Industries Percent (%)	3.9	2.6	7.7	6.2	8.1
Total Absolute Amount	30637.8	31835.9	37065.1	2912	5574

Note: All output values in the table have been converted from 1980 constant prices.

Changes in the work force stand in the vanguard of the second stage of development that China's rural industrial structure is now in, and these changes are accompanied by a corresponding structural composition that follows a dotted line path that extends forward. In the process of industrial performance, special change relationships exist among industries.

A. The Mechanism for Change in the Work Force Among Tertiary Industries: China's labor productivity rate (figured in terms of the gross output value of agricultural labor at constant 1980 prices) has averaged an annual 6.1-percent growth since 1978. Accompanying this has been an accelerated shift of the agricultural work force into secondary and tertiary industries, which have had a speed of growth averaging 10.2 and 13.3 percent, respectively. For every 1 percent increase in the agricultural labor productivity rate, the speed of shift of the work force into secondary and tertiary industries has been 1.7 and 2.2, respectively. As a result, the percentage of the work force in primary industries has declined, and the percentage of the work force in secondary and tertiary industries has risen markedly. Analysis of the speed of flow, the amount of the flow and the percentage of the work force shows that even though tertiary industries are characterized by being unable to form monopolies easily, because both work forces and capital are able to enter them readily through competition, the speed of flow is greater than in secondary industries. However, both quantity of flow and percentage are clearly less



than in secondary industries. This is because the country's rural industrial structure has already advanced from the initial stage into the initial change stage, rural industry as a representative of secondary industry having rapidly developed, and numerous trades and categories beginning to develop, absorbing large amounts of work force and capital. As a result, the volume of flow and the percentage of work forces has risen rapidly to exceed that of the tertiary industries. It may be foreseen that as marginal labor benefits among industries change, secondary industries will gradually catch up with or overtake tertiary industries in the speed of flow of work force. This may be further seen from the analysis that follows.

B. The Mechanism for Change in Work Force and in Output Value Among Industries: Concomitant with the flow of the work force, capital, which serves as a carrier of materials and technology, also flows in the same direction. Changes in the distribution of this key element in production will ultimately lead to changes in the structure of output value. One might say that the most dynamic element among the key elements in production, the flow of the work force is a vanguard that leads to changes in output value relationships and has the greatest influence on changes in industrial output value. Here we will make a regression analysis of pertinent data bearing on the flow of rural labor forces and changes in the gross output value of rural societies in 29 provinces (or regions) and cities in China during the past several years. Results show the respective coefficients of partial correlation for changes in work force flow and social gross output value in primary, secondary, and tertiary industries to have reached 0.8246, 0.9356, and 0.9271, and the coefficient of compound correlation to be 0.9579 ( $y=24279.12x_1^{0.239}x_3^{0.093}$ ).

Derivation calculations show when the amount of other production labor forces is relatively constant, for each person added to the labor force, rural social gross output value increases by 499.20 yuan, 7,956.70 yuan, and 2,074.20 yuan, respectively, in primary, secondary, and tertiary industries. Obviously, such a greatly disparate marginal labor production benefit is the agent that causes the movement of the work force among industries. In real life situations, the social net output value derived from the addition of labor in primary industries makes it almost impossible to pay the work force a living wage, with the result that the work force inevitably moves elsewhere. Conversely, a steady increase in marginal labor productivity benefits for the work force that are far higher in secondary and tertiary industries than in primary industries is also an inevitable tendency, but the latent ability of secondary industries to assimilate work forces is also far greater than that of tertiary industries.

By way of explaining the problem further, we have introduced the concept of comparative labor productivity rate in analyzing the mechanism for change for work force and for output value among industries at the present stage. By the so-called comparative labor productivity rate is meant comparison of the output value of certain industries as a percentage of tertiary industries, and of the work force in an industry as a percentage in tertiary industries. Use of this concept makes it possible to show the relationship between changes of work forces among industries and output value. Table 5 presents changes in the comparative labor productivity rate in China's rural tertiary industries from

1980 through 1985 in which we can detect problems is the following four aspects: First, in an overall sense, differences in comparative labor productivity rates among industries continue to widen. Total span (difference between maximum value and minimum value during the same period) rose from 3.041 to 3.169, showing that distribution between the work force structure and the output value structure remains not entirely rational and that an enormous potential for change still exists in the industrial structure. Second, comparative labor productivity rates in primary industries continue at less than 1 and show a tendency toward decline. This shows that the percentage of the work force in industry is not only too large and does not correspond to the percentage of output value, but also that the speed of decline in the percentage of industrial output value is still faster than the speed of decline in the percentage of the work force. This shows that the intense pressure for a shift of the agricultural work force elsewhere has not weakened, but rather has increased. Next, the comparative labor productivity rate for tertiary industries in which benefits from labor inputs are first to be realized, or in which an opening up is achieved first, shows a marked tendency toward decline. This shows that the speed of rise in the percentage of industrial output value has slowed in comparison with the speed of rise in the percentage of the work force. It also shows a gradual stabilization of tertiary industries during the initial change stage and a weakening of ability to take on workers. A tendency toward change from fast to slow in the flow of the work force inevitably follows in the wake of this development. Even though comparative labor productivity rates in tertiary industries are much lower than in secondary industries, since the comparative labor productivity rates remain higher than in primary industries and greater than 1, there is still room to take on workers. Finally, comparative labor productivity rates for secondary industries, which are far out in front, are far greater than 1, and are continuing to rise. This shows that the speed of rise in the percentage of output value of secondary industries is faster than the speed of rise in the percentage of the work force. This is undoubtedly a signal to us, namely, that the ability of secondary industries to absorb the workers continues to expand. It is not hard to see that the main direction of shift of the labor force, as well as of capital and techniques, will be into the rapidly developing secondary industries first of all, followed by the steadily developing tertiary industries.

Table 5. Table Showing Changes in Comparative Labor Productivity Rates in Rural Tertiary Industries

Industry	1980	1985
Comparative Labor Productivity Rate in Primary Industries	0.745	0.639
Comparative Labor Productivity Rate in Secondary Industries	3.786	3.808
Comparative Labor Productivity Rate in Tertiary Industries	2.385	1.052

C. Mechanism For Change in Structure of Output Value: The foregoing shows that changes in the output value of secondary and tertiary industries and in the rural social gross output value are closely related to the labor productivity rate in primary industries and the speed of shift of the work force into nonagricultural industries. This relationship is reflected in the form

of output value, by which is meant that changes in the output value of primary industries affects changes in the output value of secondary and tertiary industries. A quantitative description of Table 4 reveals that from 1980 through 1985, there was an annual average 8.2 percent increase in the output value of primary industries, and an average annual 23.3- and 20.3-percent increase, respectively, in the output value of secondary and tertiary industries. For each percent of increase in the output value of primary industries, there would be a 2.8- and 2.5-percent speed of increase in the output value of secondary and tertiary industries. This is to say that the correlation in growth of output value in the three industries was 1:2.8:2.5.

Following a dissection of all the various economic factors, we cannot forget the most direct incentive that spurs the movement of the agricultural work force along with capital and skills into other industries and encourages development of secondary and tertiary industries, namely, a change in the composition of peasant income. Analysis of the years 1978 through 1985 shows a decline from 85 percent to 66.3 percent in net earnings from agriculture as a percentage of total net earnings, and a rise from 15 percent to 33.7 percent in net income from nonagricultural industries. During the same period, 35.64 million members of the rural work force shifted to industries other than agriculture. Clearly, changes in the quantitative proportions of the income structure lead gradually to a deviation from the center of gravity in the peasants' thinking. When the percentage of income from industries other than agriculture is fairly small, the centripetal force of the key elements of labor, capital, and techniques in the direction of the mother industry, agriculture, is fairly strong, so the speed of shift to industries other than agriculture is also fairly slow. At such times, changes in the development of industries other than agriculture are also not large. Conversely, the greater the percentage of income from industries other than agriculture, the stronger the centrifugal force on agriculture of the key elements including labor, so the faster the shift toward industries other than agriculture, the faster the speed of development of nonagricultural industries, and the higher the amount of the output value of other industries. Clearly, changes in the composition of earnings leads to an acceleration in changes in the structure of rural industry.

The clarification that the above analysis provides is that there is a pattern to changes in the structure of rural industry, industries interacting with each other. Consequently, in future transformation of the structure of rural industry, one should not rely on subjective will but rather should use the foregoing pattern of changes as a foundation.

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GENETIC STUDY OF LEAF RUST (PUCCINIA RECONDITA F. SP. TRITICI) IN SOME WHEAT VARIETIES

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[English abstract of article by He Jiabi [0149 1367 3125], et al., of the Agricultural and Forestry Academy of Henan Province]

[Text] In a greenhouse, 66 wheat varieties were inoculated separately with 9 leaf rust (Puccinia recondita f. sp. tritici) cultures. The infection types were recorded and analyzed to derive the genotypes of wheat varieties and leaf rust cultures according to the concept and method of interorganismal genetics. The experimental results indicate that the wheat varieties consist of 9 resistant genes,  $lh_1$ - $lh_9$ , and the pathogenes consist of 9 corresponding avirulent genes,  $lp_1$ - $lp_9$ . It is suggested that this method seems to be much more effective and rapid than that using the hybridization process and is useful for parental selection in plant disease resistance breeding programs.

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